DVMS RAS V3.5
User Guide

GYYR® by SILENT WITNESS®

DVMS RAS V3.5
User Guide

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1

Introduction

Access DVMS from any remote location using a PC running Remote Access Software (RAS). RAS enables you to perform almost all the same functions remotely that you can locally.

RAS V3.x works with:

- DVMS *Duplex* (1600/800)
- DVMS *Simplex* (1600/800/400/100)
- DVMS 100

Note RAS V3.x does not operate with DVMS 400.

The RAS desktop is the primary user interface for the remote system. It allows overall control of what is displayed on the monitor, including live or previously recorded video.

Features

- View live video (multiple viewing speeds available)
- Play recorded digital video (multiple playback speeds available)
- Retrieve recorded data without stopping the DVMS unit from recording
- Archive an entire video clip, multiple video clips, a part of a video clip, or an individual image to the archive device in the DVMS unit
- Print a stored .bmp image file directly from RAS
- Play back previously recorded video clips saved on the local PC using RAS Viewer
- Change DVMS configuration settings remotely
- Upload new software releases to the DVMS unit(s)
- Download or save DVMS configurations
- Support for live audio and audio playback after clip download
- Multiple RAS user access (DVMS 1600/800)
- Pan Tilt Zoom (PTZ) camera support
- Encrypted remote password management
- User definable TCP port number for RAS

Warranty and Service

Subject to the terms and conditions listed on the Product Warranty Card, during the warranty period Silent Witness will repair or replace, at its sole option, free of charge, any defective products returned prepaid.

In the event you have a problem with any Silent Witness product, please call Customer Service for assistance or to request a Return Authorization (RA) number.

In the U.S.A. and Canada, call 1.800.893.9513, or call +1.604.574.1523.

For international, call 00.800.2020.8080.

Be sure to have the model number, serial number, and the nature of the problem outlined for the technical service representative.

Prior authorization must be obtained for all returns, exchanges, or credits. Items shipped to Silent Witness without a clearly identified Return Authorization (RA) number may be refused.

Related Documents

For more information on subjects relevant to this document, refer to the following documents:

Document title	Part number
DVMS 1600/800 Duplex Reference Guide	*900.0083*
DVMS 100 Operating Instructions	*900.0173*
DVMS Firmware and RAS Software Upgrade Application Note	*900.0149*

2

Installation

This chapter tells you how to:

- Install RAS software on your PC
- Check the software version

PC System Requirements

Playing back digital video puts a high demand on your computer system. To use the RAS video monitoring and playback functions, your PC must meet the minimum system requirements listed below.

Note For best system performance, Silent Witness recommends that you ensure that your system is operating at these minimum configurations or higher.

Processor	Intel Pentium 500 MHz or compatible, 1.0 GHz or higher is recommended. An MMX processor and faster processor speeds are recommended. **Note** Non-MMX processors cannot display video images. However, you may still access the Setup screens and start and stop video recording.
Memory	96 MB RAM, 128 MB RAM or higher is recommended.
Disk space	10 MB of available hard drive space for application files
Hard disk storage	For downloaded video files, high quality video images require 35 KB per frame (NTSC).
Monitor	SVGA with 1024 x 768 x 24 bit true color (minimum). An accelerated graphics card with video RAM of 32 MB is recommended.
CD-ROM drive	Required to install RAS software from CD

Operating system	Microsoft® Windows® 98 Second Edition
	Microsoft Windows 2000 Service Pack 3 or higher
	Microsoft Windows XP Professional
	Microsoft Windows NT 4.0 Service Pack 6a or higher
Connections:	
- Dial-up modem	A minimum speed of 38400 bps is required. A higher baud rate is recommended.
- Network	An Ethernet network card must be installed in the PC.

Installing RAS Software from the RAS CD-ROM

To install RAS software on your PC:

1. Insert the CD-ROM that came with your DVMS unit into the CD-ROM drive on your PC. Follow the InstallShield Wizard instructions to complete the software installation.

Note When the Customer Information screen displays with the selection Install this application for: Select ⊗ **Only for me (User)**. Otherwise, administrative privilege may be required.

   If the InstallShield Wizard does not start automatically:

   a. In Windows Explorer, open the RAS folder on the CD-ROM.

   b. Double-click the **Setup.exe** file to start the RAS installation.

   c. Follow the InstallShield Wizard to complete the installation.

2. Double-click the RAS icon on your desktop to start the RAS application.

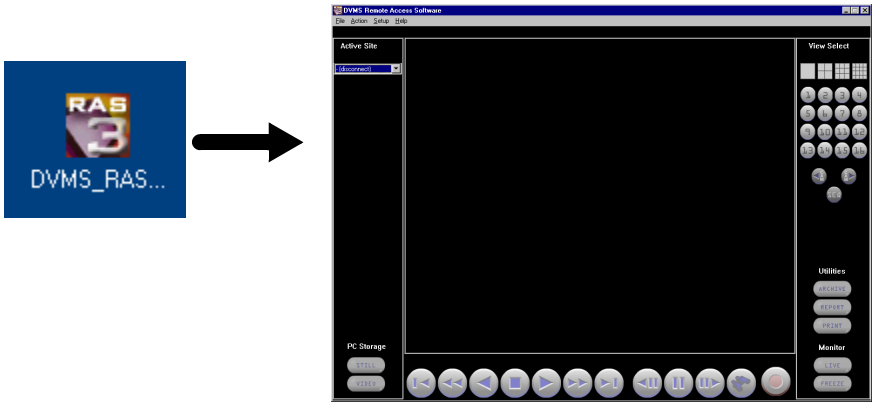
   If you accepted the program defaults during installation, you can also start RAS by clicking **Start** on the Windows taskbar and selecting **Programs ➤ Gyyr ➤ DVMS RAS 3.30**.

To upgrade your current RAS software, see *DVMS Firmware and RAS Software Upgrade*, page *82*.

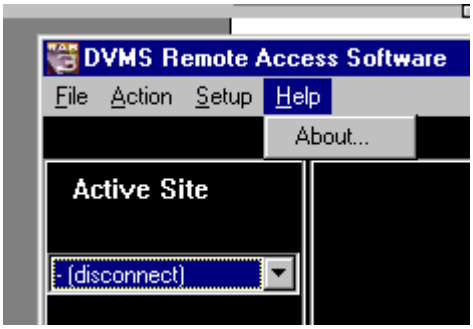
Checking the Software Version

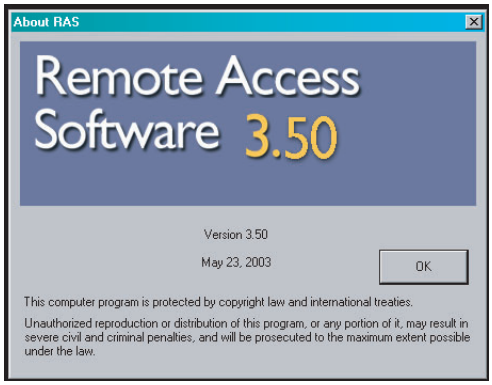
To check the current RAS software version:

1. Launch RAS by double-clicking the RAS icon on your Desktop.



2. Select **Help** ➤ **About** from the RAS menu bar.




About RAS
Remote Access Software 3.50
Version 3.50
May 23, 2003
OK
This computer program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.

3. Compare the loaded version with the current version on the Silent Witness web site at www.silentwitness.com. If there is a more recent version than yours, follow the upgrade procedure on *page 82*.

3

PC to DVMS Connection

This chapter explains how to:

- Physically connect your PC to the DVMS unit
- Program the DVMS unit for connectivity to the PC with RAS software
- Program the RAS software for connectivity to the DVMS unit

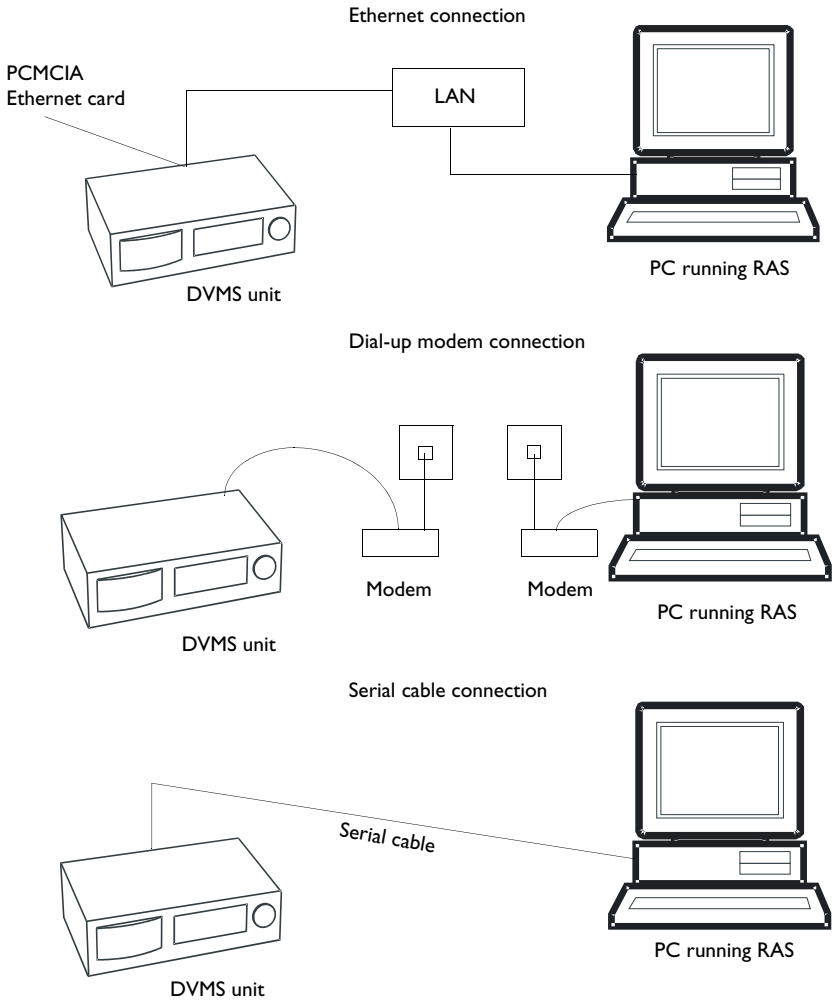
Note You may require Administrative privileges to perform the following procedures.

Connecting a PC to the DVMS

You can connect your PC to the DVMS in three ways:

- Using an Ethernet connection
- Using a dial-up modem connection
- Using a serial cable directly to the DVMS

The following figure shows the three possible PC to DVMS connections.



PC to Ethernet Connection on the DVMS

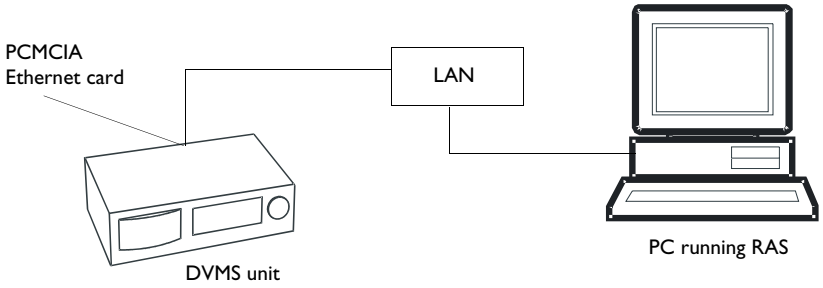
Before connecting with the DVMS unit, you must first enable your PC to communicate to the network. Ensure that your ISP or Network Administrator has the PC and the Network Interface Card (NIC) working properly before attempting a DVMS remote connection. Under RAS network selection, RAS prompts you for the DVMS name and IP address (must be a fixed address).

Step one Install the PCMCIA Ethernet Card into the DVMS. See *Appendix B* for a list of currently supported Ethernet cards.

1. Ensure that there is no power to the DVMS unit. If necessary, disable power by removing the power cord from the rear of the unit.

Note When you first install a PCMCIA Ethernet card into the DVMS, you must reboot the DVMS to have the unit recognize the card.

2. Insert the approved 10/100 BaseT PCMCIA card into the PC card slot on the rear of the DVMS (see *Appendix B*).
3. Physically connect the DVMS and the PC to the network.



4. Power on the DVMS by plugging the power cord into the rear of the unit.

Step two Validate the installation and recognition of the Ethernet card on the System Information screen.

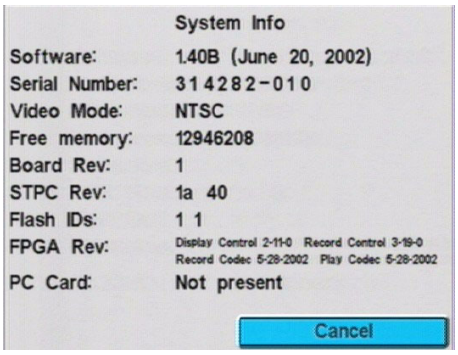
DVMS 100 and DVMS *Simplex*

Access the System Information screen (**Main Setup** Menu ➤ **Install** ➤ **Service** ➤ **System Info**)

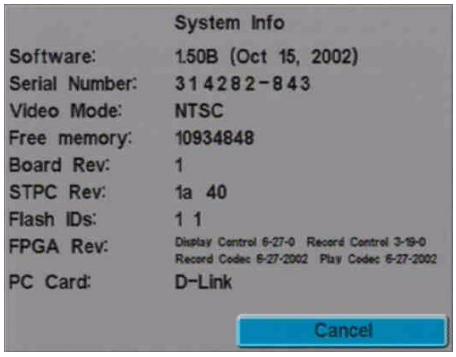
DVMS 800*Duplex* and DVMS 1600*Duplex*

Access the System Information screen (**MENU** ➤ **System Setup** ➤ **System Info**).

No PC Card present in DVMS unit


System Info
Software: 1.40B (June 20, 2002)
Serial Number: 314282-010
Video Mode: NTSC
Free memory: 12946208
Board Rev: 1
STPC Rev: 1a 40
Flash IDs: 1 1
FPGA Rev: Display Control 2-11-0 Record Control 3-19-0 Record Codec 5-28-2002 Play Codec 5-28-2002
PC Card: Not present
Cancel

PC Card recognized in DVMS unit


System Info
Software: 1.50B (Oct 15, 2002)
Serial Number: 314282-843
Video Mode: NTSC
Free memory: 10934848
Board Rev: 1
STPC Rev: 1a 40
Flash IDs: 1 1
FPGA Rev: Display Control 6-27-0 Record Control 3-19-0 Record Codec 6-27-2002 Play Codec 6-27-2002
PC Card: D-Link
Cancel

The PC Card field should display the card type. If the message `Not present` or `No Card` displays, retry *Step one* and *Step two*.

Step three Program the DVMS for connectivity as follows:

1. Enable remote access on the DVMS Remote Access screen:

DVMS 100 and DVMS *Simplex*

a. Press the **Setup** button on the front panel of the DVMS 100. If passwords are enabled, enter a user name with the corresponding password when prompted.

b. When prompted to select a desired setup method, select **Normal**.

c. Access the Remote Access screen (**Main Setup** Menu ➤ **Install** ➤ **Service** ➤ **Remote Access**).

Note Obtain IP Address and Subnet Mask information from your ISP or Network Administrator.

d. Ensure that Remote Enable is **checked** and the Method field is set to **IEEE 802.3 (Ethernet)**.

e. **Accept** these changes.

f. The message, `Attention, You need to reboot your unit for these changes to take effect` displays. Select **OK**.

g. Exit all menu screens to return to the live view mode. On the rear panel of the DVMS 100, turn the rocker switch to the OFF position. After 15 seconds, turn the switch back to the ON position and allow the unit to power up.

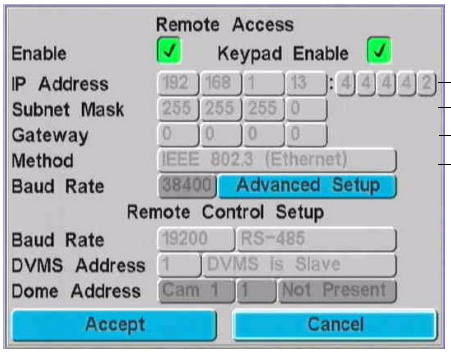
h. After the DVMS 100 has powered up again, ensure that remote access is enabled for at least one user on the User Preferences screen (**Main Setup** Menu ➤ **Change Password**).

DVMS 800*Duplex* and DVMS 1600*Duplex*

Note The handling of Ethernet LAN TCP/IP data has been modified to allow for higher bandwidth utilization. Therefore, DVMS 1600/800 units connected by an Ethernet LAN have faster image updates per second.

---

a. Access the DVMS Remote Access screen (**MENU ➤ System Setup ➤ Remote Access**).



DVMS IP Address and TCP port number

DVMS Subnet Mask

Gateway - Program as required

Must be set as shown

Note Obtain IP Address and Subnet Mask information from your ISP or Network Administrator.

b. Check the **Enable** field to enable remote access.

c. Ensure the Method field is set to **IEEE 802.3 (Ethernet)**.

d. **Accept** these changes.

e. The message, `Attention. You need to reboot your unit for these changes to take effect`, displays. Select **OK**.

f. After selecting OK, the message, `Do you wish to reboot your unit` now?, displays. Select **Reboot**. The changes are saved and the DVMS performs a reboot.

g. After the DVMS has powered up again, ensure remote access is enabled for at least one user on the User Permissions screen (**MENU ➤ Change Password ➤ User Permissions**).

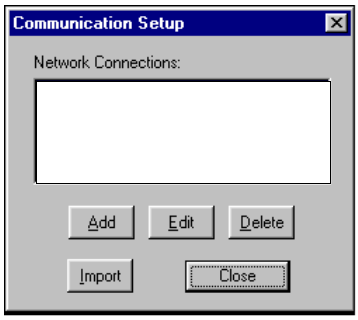
Note User permissions can **ONLY** be changed locally on the front panel of the DVMS.

Step four Proceed to *Adding a RAS Ethernet Connection*.

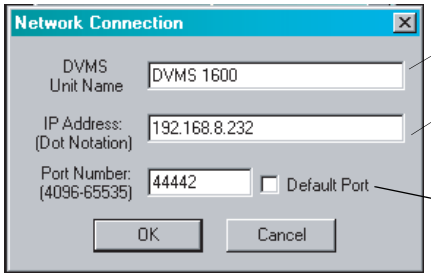
Adding a RAS Ethernet Connection

To add an Ethernet connection:

1. Start RAS.
2. Select **Setup ➤ Network Connections** from the main RAS menu. The Communication Setup dialog box displays.



3. Click **Add**. The Network Connection dialog box displays.

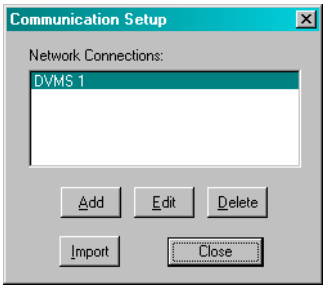


a. Enter a name for the network connection.

b. Enter the DVMS IP Address. Must be the same as the IP address you set during the DVMS system configuration.

c. Use the default TCP port 44442 or see *Network Options*, page *31*.

4. Click **OK**. The network connection appears in the Network Connections field of the Communication Setup dialog box (**RAS Main** Menu ➤ **Setup** ➤ **Network Connections**).

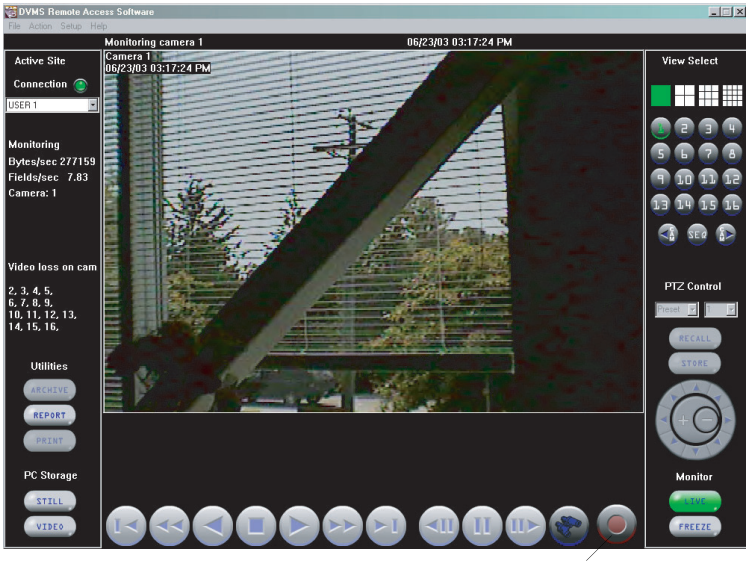


5. To use the connection, select **Action ➤ Connect** from the main RAS menu. The connection appears in the Connect To list. Highlight the connection and click **Connect**.

6. After a few seconds, the Login box opens, indicating a successful Ethernet connection. The user name must be entered exactly the same (case sensitive) as previously set on the Change Password screen. Click **OK** to log in.

User name is case sensitive. The space is important for default USER 1.

7. When the user name and password are recognized by the DVMS unit, the Login dialog box closes and all the RAS buttons on the DVMS Remote Access Software main screen are activated. The Active Site field on the left-hand side of the screen indicates the name of the unit to which you are currently connected.



Bright red indicates the DVMS is recording.

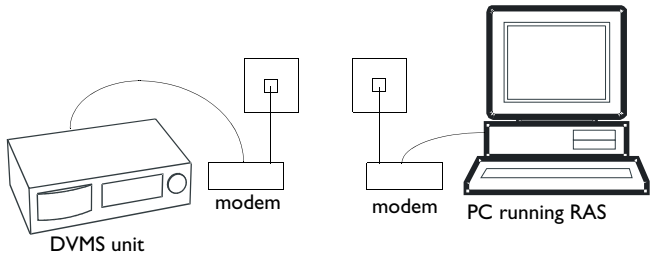
Dial-Up Modem Connection to the DVMS

Note For Windows 98/NT you must install the special null modem driver created by Gyyr/Silent Witness. It is included on your CD that came with the DVMS unit. For Windows 2000/XP this is not necessary (see *Appendix A*).

If you are using a modem connection, you need to first install Dial Up Networking and your modem driver. If Dial Up Networking is not installed on your PC, please refer to the appropriate Microsoft documentation. If problems are encountered during the installation process, please consult Microsoft for assistance.

To connect using a dial-up modem connection:

1. Turn on the modems and ensure they are hooked up to phone lines (at both ends).
2. Connect an external serial modem to the EIA-232 port on the rear panel of the DVMS or insert a PCMCIA modem card into the PC card slot on the DVMS rear panel. See *Appendix B* for a list of currently supported modem cards.



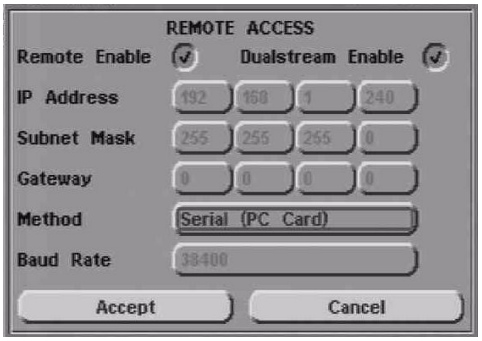
For DVMS 100 or DVMS 400 units, use a modem cable.

Note When you first install a PCMCIA modem card, you must reboot the DVMS unit to have the unit recognize the card.

3. Power up the DVMS.
4. During setup, configure remote access in the DVMS to support this type of connection:

DVMS 100, DVMS 400, and DVMS *Simplex*

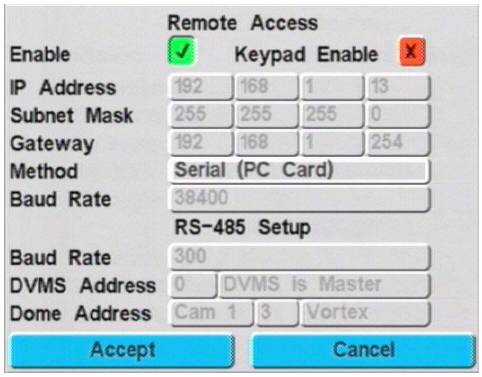
a. Access the Remote Access screen (**Main Setup** Menu ➤ Install ➤ **Service** ➤ **Remote Access**



b. Check the **Remote Enable** field.

DVMS 800*Duplex* and DVMS 1600*Duplex*

a. Access the Remote Access screen (**MENU ➤ System Setup ➤ Remote Access**).



b. Check the **Enable** field.

Perform the following steps for all DVMS models:

5. If you use a PCMCIA Modem Card, set the Method field to **Serial (PC Card)**. If you use an external modem, set the Method field to **Serial (EIA-232)**.

   For serial PC card, connect your modem directly to the RJ-11 jack attached to the PCMCIA Modem Card you have inserted. For external modem connection, connect the modem serial port to the Comm port on the rear panel of the DVMS.

6. Set the Baud Rate field for the dialup speed you want to use. Silent Witness recommends a minimum value of 38,400.

7. Set the IP Address, Subnet Mask, and Gateway fields for the DVMS as allocated to you by your IP Network Administrator

Setting Up a RAS Modem Connection

Connecting to an Existing Modem

If you have already set up a modem connection on your PC, it appears in the RAS Connect To list.

Note All your modem connections are listed, including connections that are not related to the DVMS (for example, internet connections).

To connect to a previously created DVMS connection:

1. Highlight the connection in the Connect To list and click **Connect.**

   OR

   Select the connection directly from the drop-down list.

2. After a few seconds, the Login dialog box opens, indicating a successful connection. Enter the user name and password in the appropriate fields. The user name must be entered exactly the same (case sensitive) as previously set in the Change Password screen. Click **OK** to log in.

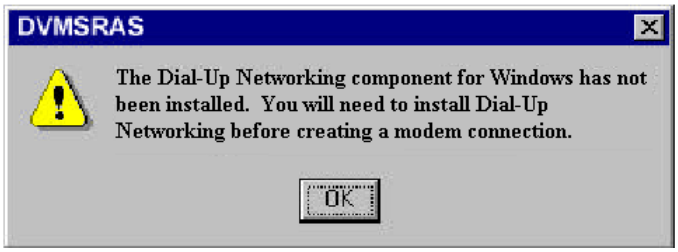
Connecting to a New Modem

To set up a new modem connection:

1. Start RAS but do not connect to the DVMS (click **Cancel**).
2. Select **Setup ➤ Modem Connections** from the main RAS menu. The Communication Setup dialog box displays.

3. Click **Add** to create a new modem connection.

Note If you do not have Dial Up Networking already installed in Windows, a warning window displays. To install Dial Up Networking on your PC, see *Appendix A*. If problems are encountered during the installation process, please consult Microsoft for assistance.


DVMSRAS
The Dial-Up Networking component for Windows has not been installed. You will need to install Dial-Up Networking before creating a modem connection.
OK

4. The dialog box that displays depends on the operating system on your PC.

   Windows XP Professional allows you to modify the modem properties (proceed to *Windows XP Professional*).

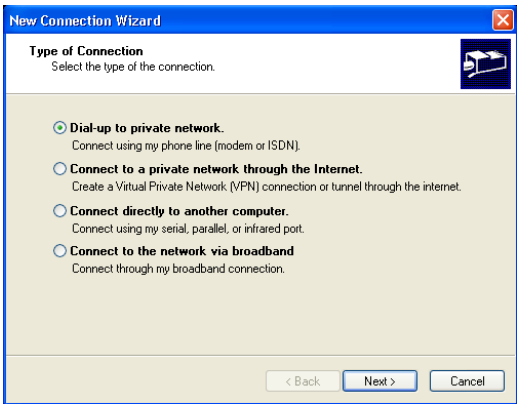
Windows 2000 allows you to modify the modem properties (proceed to *Windows 2000*).

Windows NT allows you to add a new Phonebook Entry (proceed to *Windows NT Phonebook Entry*).

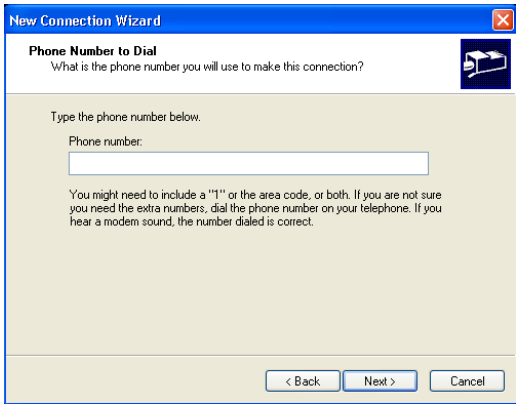
Windows 98 allows you to modify the modem properties (proceed to *Windows 98 Modem Properties*).

Windows XP Professional

1. When prompted, click the **Dial-up to private network** radio button, then click **Next**.


New Connection Wizard
Type of Connection
Select the type of the connection.
Dial-up to private network.
Connect using my phone line (modem or ISDN).
Connect to a private network through the Internet.
Create a Virtual Private Network (VPN) connection or tunnel through the internet.
Connect directly to another computer.
Connect using my serial, parallel, or infrared port.
Connect to the network via broadband
Connect through my broadband connection.
< Back
Next >
Cancel

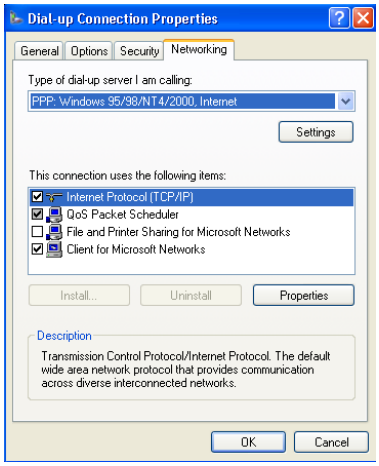
2. In the Phone number field, enter the phone number of the DVMS unit that is being connected to, then click **Next**.


New Connection Wizard
Phone Number to Dial
What is the phone number you will use to make this connection?
Type the phone number below.
Phone number:
You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telephone. If you hear a modem sound, the number dialed is correct.
< Back
Next >
Cancel

3. Enter the name of the dial-up connection, then click **Finish**.

New Connection Wizard
Finished
The wizard is ready to create your connection.
Type a name you want for this connection:
Dial-up Connection
Click Finish to save it in the Network Connections folder.
To edit this connection later, select it, click the File menu, and then click Properties.
< Back
Finish
Cancel

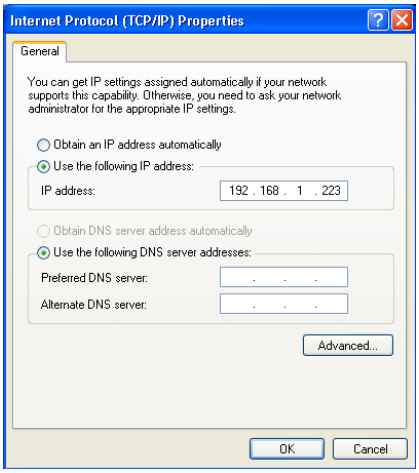
4. On the Dial-up Connection Properties screen, select the **Networking** tab. Double-click **Internet Protocol (TCP/IP)**.



5. Select the **General** tab. Click the **Use the following IP address** radio button and enter a unique IP address in the IP address field.

   The IP address (your PC modem address) you enter must be a unique number. That is, it must be different from the IP address of your DVMS unit. Also, no other PCs or DVMS units in your network can use the same number.

   For additional IP address information, contact your ISP or Network Administrator.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 1 . 223
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

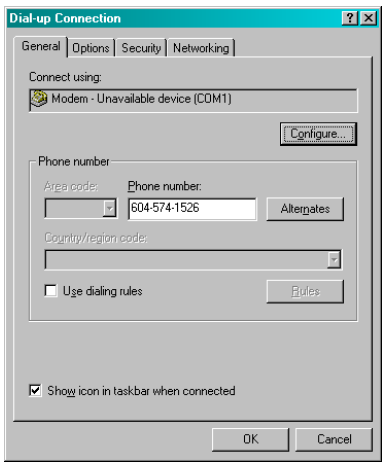
6. Click **OK** to save the settings.
7. Click **OK** again to return to the RAS Modem Connections screen.
8. Your modem connection should now be listed in the RAS Communication Setup list. Click **Close**.
9. To use the new connection, navigate to the RAS **Main** menu, select **Action ➤ Connect**, and select the new connection in the Connect To list. Click **Connect**.

   Establishing a modem connection with the DVMS unit can take a few seconds. A connection can take up to 60 seconds.

   The Login dialog box opens, indicating a successful connection.

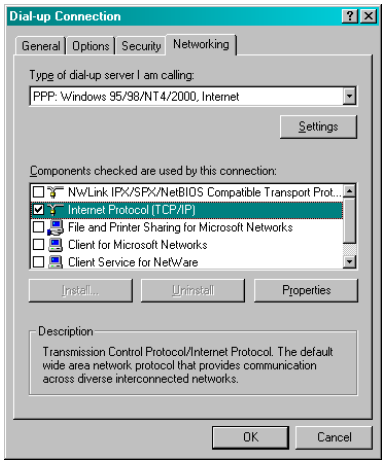
Windows 2000

1. When prompted:
   a. Select **Dial-up**.
   b. Enter your phone number.
   c. Click **Finish**.



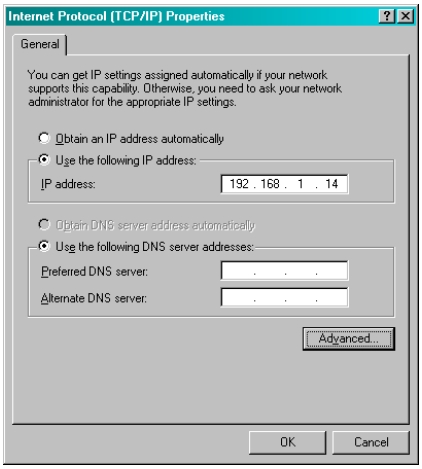
2. The Dial up Connection screen displays.

   Double-click **Internet Protocol (TCP/IP)** to display the IP Properties screen.



3. On the General tab:
   a. Click the **Use the following IP address** radio button and enter a unique IP address.
   b. The IP address (your PC modem address) you enter must be a unique number. That is, it must be different from the IP address of your DVMS unit. Also, no other PCs or DVMS units in your network can use the same number.

      For additional IP address information, contact your ISP or Network Administrator.
   c. Click **OK** to save the settings.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 1 . 14
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

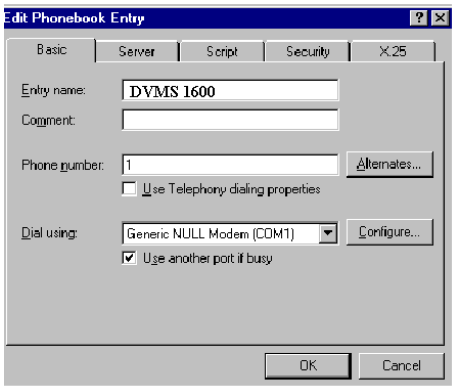
4. Click **OK** again to return to the RAS Modem Connection screen.
5. Your modem connection should now be listed in the RAS Communication Setup list. Click **Close**.
6. To use the new connection, navigate to the RAS **Main** menu, select **Action ➤ Connect**, then select the new connection in the Connect To list. Click **Connect**.

   Establishing a modem connection with the DVMS unit can take a few seconds. A modem connection can take up to 60 seconds.

   The Login dialog box opens, indicating a successful connection.

Windows NT Phonebook Entry

1. On the Edit Phonebook Entry dialog box, select the **Basic** tab.

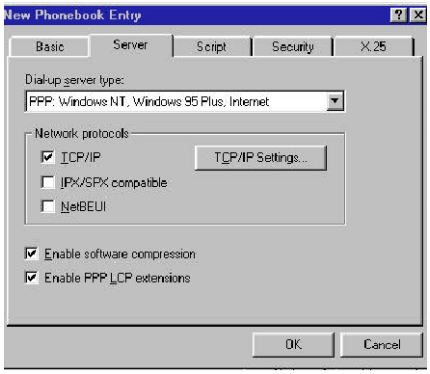


   a. Enter the name you want to use for the connection.

   b. Enter the phone number. For a modem, enter **1**.

   c. Select your modem. If your modem does not appear in the drop-down list, you must install it before you create your phone book entry.

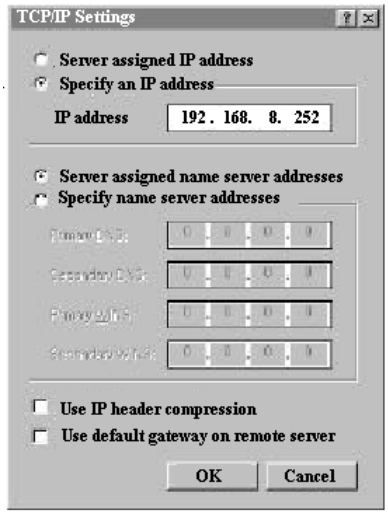
2. On the **Server** tab.



   a. In the Dial-up server type drop-down list, select **PPP**.

   b. Ensure that only **TCP/IP** is checked.

3. Click **TCP/IP Settings**. The PPP TCP/IP Settings window displays.



   a. Click the **Specify an IP address** radio button and enter a unique IP address in the IP address field.

      The IP address (your PC modem address) you enter must be a unique number. That is, it must be different from the IP address of your DVMS unit. Also, no other PCs or DVMS units in your network can use the same number.

      For additional IP address information, contact your ISP or Network Administrator.

   b. Click **OK** to save the settings and return to the Edit Phonebook Entry dialog box.

4. On the **Script** tab, make sure the Login script selected is **None**.
5. Click **OK** to create your new phone book entry.
6. Your modem connection should now be listed in the RAS Communication Setup list. Click **Close**.
7. To use the new connection, navigate to the RAS **Main** menu, select **Action ➤ Connect**, and select the new connection in the Connect To list. Click **Connect**.

   Establishing a modem connection with the DVMS unit can take a few seconds. A modem connection can take up to 60 seconds.

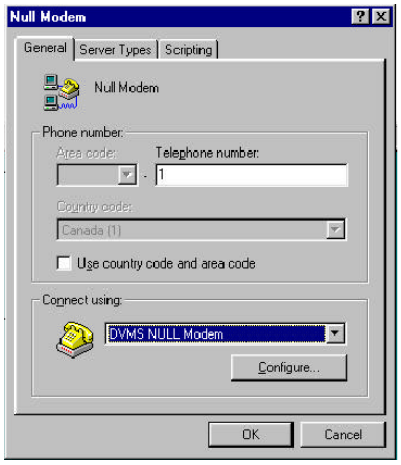
   The Login dialog box opens, indicating a successful connection.

Windows 98 Modem Properties

1. On the **General** tab.

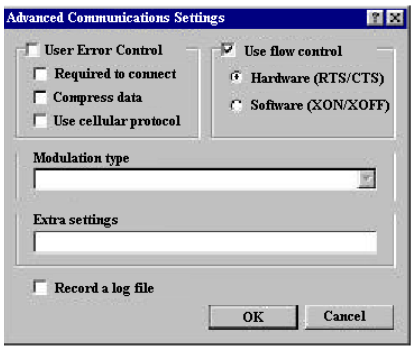
   a. Enter the phone number in the Telephone number field. For a modem, enter **1.**

   b. In the Connect using drop-down list, select your modem. If your modem does not appear in the list, you must install it before creating your modem connection.



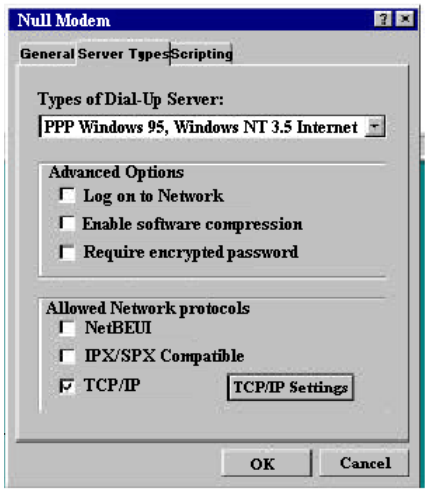
2. Click **Configure**. The Advanced Connection Settings window displays. Depending on your modem, the User Error Control group box may be grayed out. If it is not grayed out, the Compress data check box must **not** be checked

3. Click **OK** to return to the main Modem Properties window.



4. On the **Server Types** tab, only **TCP/IP** should be checked. Clear all others.

   On some Windows operating systems, Server Types may be a button instead of a tab. In this case, click the **Server Type** button.

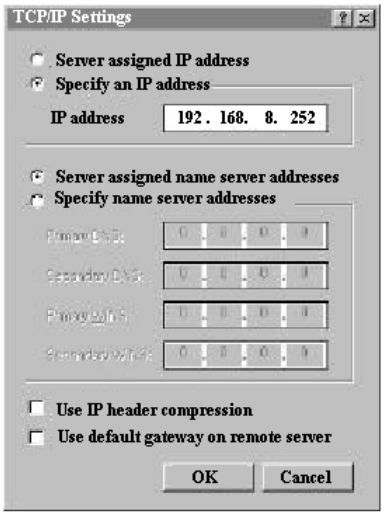


5. Click **TCP/IP Settings**. The TCP/IP Settings dialog box opens.

   a. Click the **Specify an IP address** radio button. Clear all other check marks.

   b. Enter a unique IP address for your modem. It must be different from the IP address of your DVMS unit. Also, no other PCs or DVMS units in your network can have the same IP address.

      For additional IP address information, contact your ISP or Network Administrator.



6. Click **OK** to save your settings and return to the Modem Properties window.

7. On the **Scripting** tab, make sure the Login script selected is **None**.
8. Click **OK** to create your new modem connection.
9. Your modem connection should now be listed in the RAS Communication Setup list. Click **Close**.
10. To use the new connection, navigate to the RAS **Main** menu, select **Action ➤ Connect**, and select the new connection in the Connect To list. Click **Connect**.

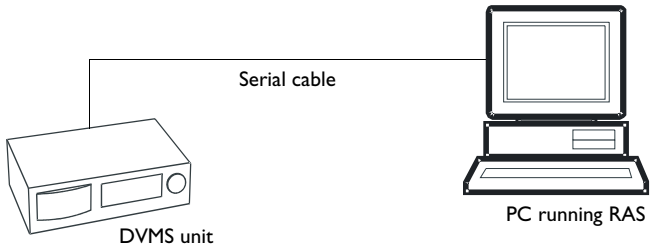
    Establishing a modem connection with the DVMS unit can take a few seconds. A modem connection can take up to 60 seconds.

    The Login dialog box opens, indicating a successful connection.

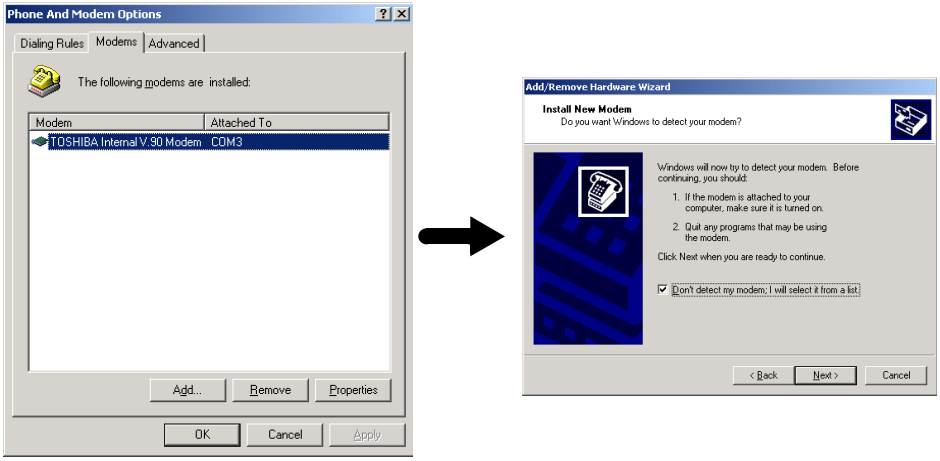
Setting Up a PC to DVMS Serial Connection With Windows 2000/XP

Install a PC to DVMS Serial Connection

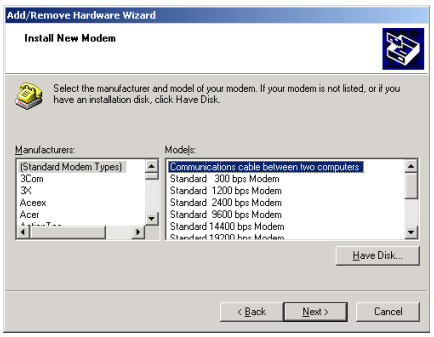
Note You will require Administrative privileges to perform this procedure.



1. In the Control Panel window (**Start ➤ Settings ➤ Control Panel**), select the **Modems** tab, highlight the modem, then click **Add**.

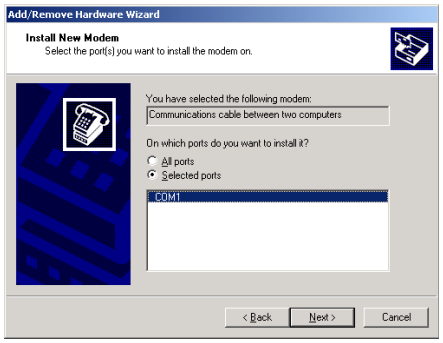

Phone And Modem Options
Dialing Rules
Modems
Advanced
The following modems are installed:
Modem
Attached To
TOSHIBA Internal V.90 Modem
COM3
Add...
Remove
Properties
OK
Cancel
Apply
Add/Remove Hardware Wizard
Install New Modem
Do you want Windows to detect your modem?
Windows will now try to detect your modem. Before continuing, you should:
1. If the modem is attached to your computer, make sure it is turned on.
2. Quit any programs that may be using the modem.
Click Next when you are ready to continue.
Don't detect my modem; I will select it from a list.
< Back
Next >
Cancel

2. Place a check mark beside **Don't detect my modem, I will select it from a list**, then click **Next**. The Add/Remove Hardware Wizard displays.

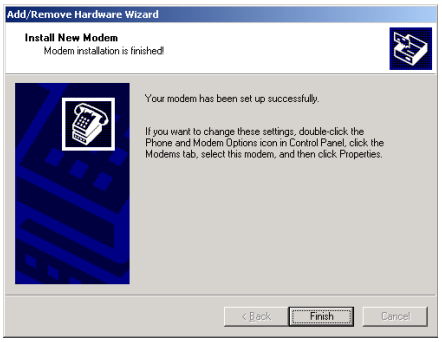


3. In the Manufacturers drop-down list, highlight **(Standard Modem Types)**.

4. In the Models drop-down list, highlight **Communications cable between two computers**, then click **Next**.


Add/Remove Hardware Wizard
Install New Modem
Select the port(s) you want to install the modem on.
You have selected the following modem:
Communications cable between two computers
On which ports do you want to install it?
All ports
Selected ports
COM1
< Back
Next >
Cancel

5. The Add/Remove Hardware Wizard opens.
6. Highlight **COM1**, then click **Next**.
7. Click **Finish**.

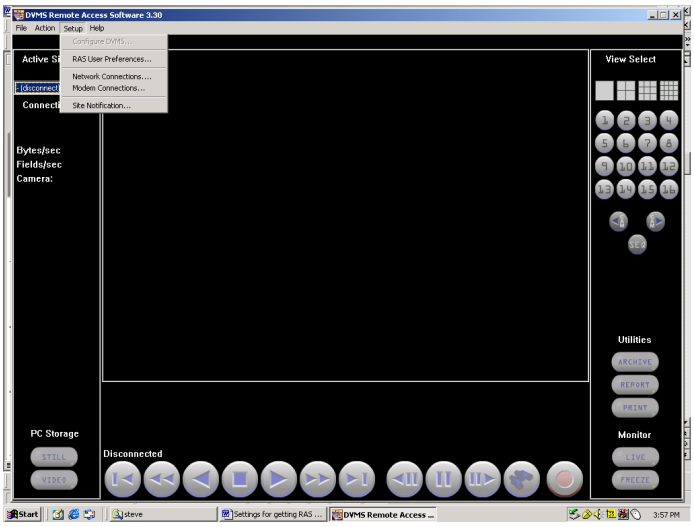

Add/Remove Hardware Wizard
Install New Modem
Modem installation is finished!
Your modem has been set up successfully.
If you want to change these settings, double-click the Phone and Modem Options icon in Control Panel, click the Modems tab, select this modem, and then click Properties.
< Back
Finish
Cancel

The direct connection modem driver is now installed.

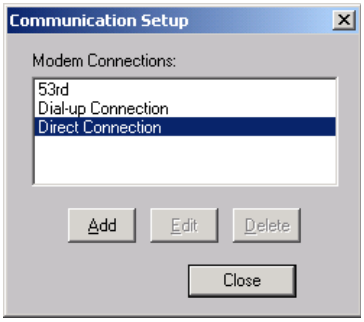
Configure the RAS Connection

1. Launch the RAS application.

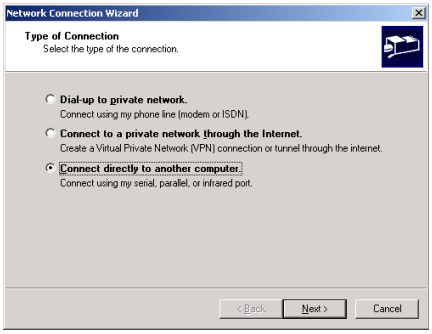
2. On the RAS menu bar, select the modem connection (**Setup ➤ Modem Connections**).



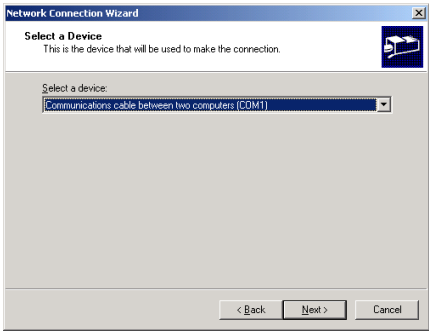
3. The Communication Setup window displays. Highlight **Direct Connection**, then click **Add**.



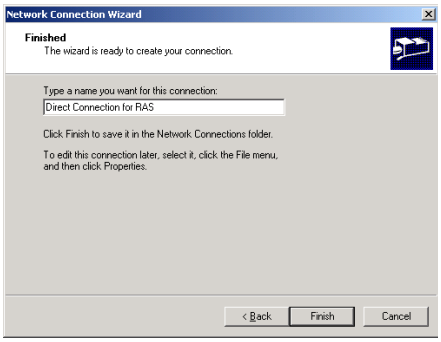
4. The Network Connection Wizard opens. Select the radio button **Connect directly to another computer**, then click **Next**.


Network Connection Wizard
Type of Connection
Select the type of the connection.
Dial-up to private network.
Connect using my phone line (modem or ISDN).
Connect to a private network through the Internet.
Create a Virtual Private Network (VPN) connection or tunnel through the internet.
Connect directly to another computer.
Connect using my serial, parallel, or infrared port.
< Back
Next >
Cancel

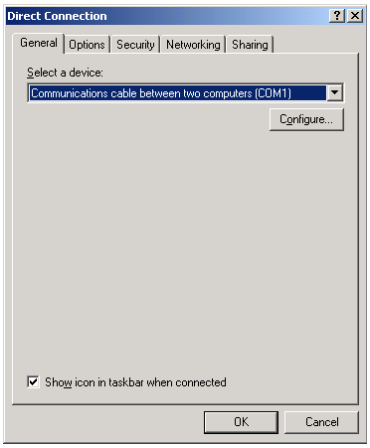
5. In the Select a device drop-down list, highlight **Communications cable between two computers (COM1)**, then click **Next**.


Network Connection Wizard
Select a Device
This is the device that will be used to make the connection.
Select a device:
Communications cable between two computers (COM1)
< Back
Next >
Cancel

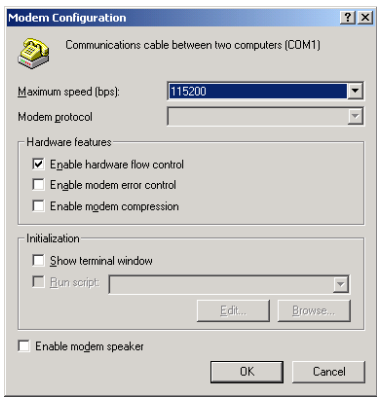
6. Enter a name for the connection when prompted, then click **Finish**.


Network Connection Wizard
Finished
The wizard is ready to create your connection.
Type a name you want for this connection:
Direct Connection for RAS
Click Finish to save it in the Network Connections folder.
To edit this connection later, select it, click the File menu, and then click Properties.
< Back
Finish
Cancel

7. The Direct Connection window displays. In the Select a device drop-down list, highlight **Communications cable between two computers (COM1)**, then click **Configure**.



8. The Modem Configuration window displays. Set the fields as shown below, then click **OK**.

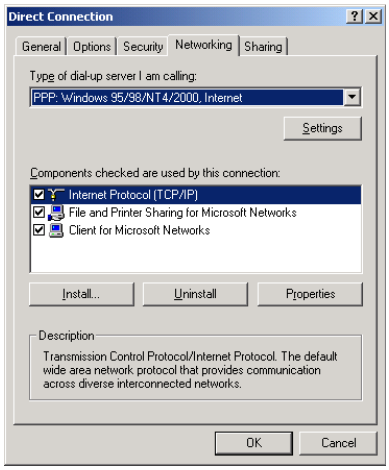


9. On the Direct Connection window, select the **Networking** tab.

   a. In the Type of dial-up server I am calling drop-down list, select the **PPP: Windows 98/NT4/2000, Internet** option.

   b. In the Components used by this connection area, highlight **Internet Protocol (TCP/IP)** and ensure that it is checked.

   c. Click **Properties**.



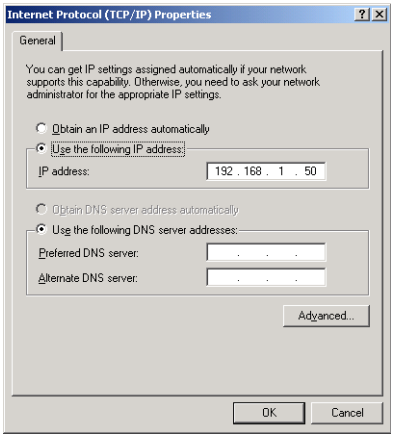
10. On the Internet Protocol (TCP/IP) Properties window.

    a. Select the radio button **Use the following IP address**.

    b. Set the IP address as shown. This IP address must be a unique IP address that is different than that set in the DVMS.

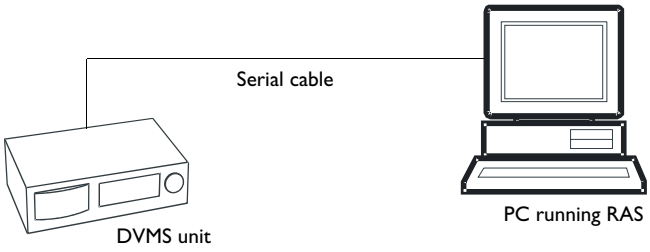
       For the purpose of this example, we will later set the DVMS IP address as 192.168.1.49.

    c. Click **OK**.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 1 . 50
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Connect a Serial Cable Between the PC and the DVMS

See *Appendix C* for the correct cable to build.



Program the DVMS

1. Press **MENU** on the front panel of the DVMS.
2. Log in when prompted (assuming USER IDs are enabled).
3. Go to the Remote Access screen (**MENU ➤ System Setup ➤ Remote Access**).
4. Set the Method field to **Serial (EIA-232)**.
5. Set the Baud Rate field the same as you set in the Windows settings.
6. Set the IP address to **192.168.1.49**.
7. Set the Subnet Mask field to **255.255.255.0**.
8. Select **Accept**, then **Enter** to confirm your changes and exit this screen.
9. Exit out of menu setup, then reboot the DVMS to activate the changes.

Connect to the DVMS Using RAS

Launch RAS and connect to the DVMS.

Setting Up a PC to DVMS Serial Connection With Windows NT/98

For information see *Appendix A, Modem and Serial (Null Modem) Connections (Windows NT/98 Only)*.

4

Network Options

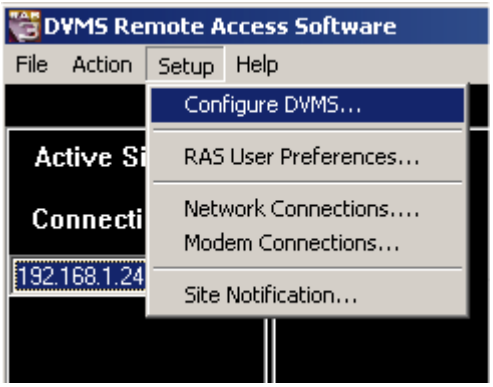
This chapter explains how to:

- Remotely configure a DVMS unit
- Manage passwords
- Set bandwidth throttle on the DVMS
- Define TCP Port Number for RAS

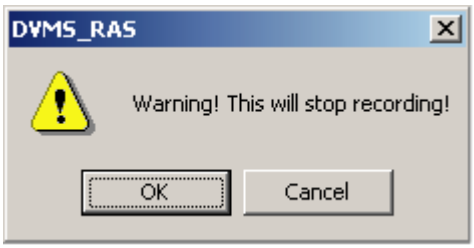
Configuring a Remote DVMS

You can configure almost all DVMS features remotely using RAS (recording stops while configuring).

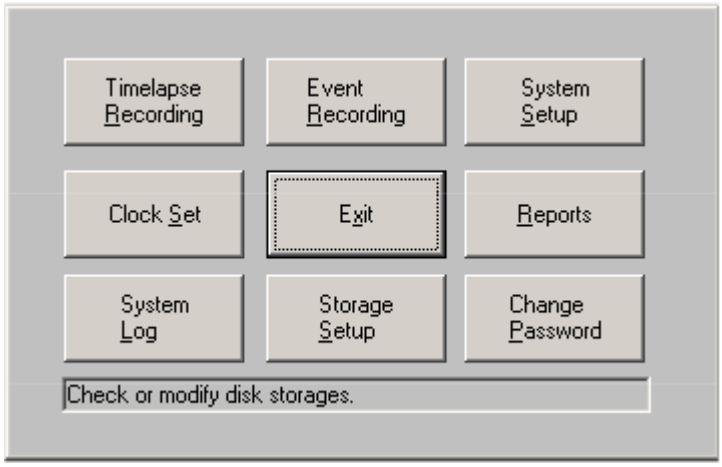
1. Pull down the **Setup** menu and click on **Configure DVMS**.



2. The stop recording warning appears, click **OK**.



3. The menu for the DVMS appears. When you are finished configuring the DVMS click on **Exit**.



Note For detailed information on programming a remote DVMS, consult the unit's User Guide, available at www.silentwitness.com.

Encrypted Remote Password Management Support

DVMS passwords and privilege levels can now be changed by a user with Administrative access. The configurations are encrypted when passed across the network to and from RAS to ensure that passwords remain confidential.

To access this feature:

1. From the RAS **Setup** menu, select **Configure DVMS**.
2. Log in, and then select **Change Password**.
3. Make the desired changes, then click **OK** to confirm your changes and exit the screen.

Setting Bandwidth Throttle on the DVMS (DVMS 800*Duplex*/1600 *Duplex* and DVMS *Simplex* Only)

When the DVMS is connected to a PC using a network connection (see *PC to Ethernet Connection on the DVMS*, page *8*), video and audio traffic is transmitted over the LAN (Local Area Network). You can control the amount of bandwidth traffic that is used over the LAN by setting the bandwidth throttle on the User Preferences screen. The default setting is 250 KBps (the maximum).

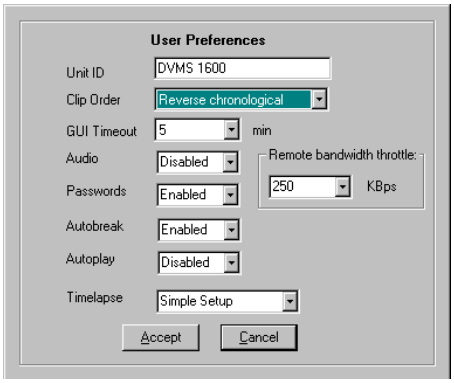
To set a bandwidth throttle:

1. Go to the DVMS User Preferences screen:

   DVMS 800*Duplex* and DVMS 1600*Duplex*: (**MENU ➤ System Setup ➤ User Preferences**)

   DVMS *Simplex*: (**Main** Setup ➤ **Install ➤ Service ➤ User Preferences**)

   The following figure displays.



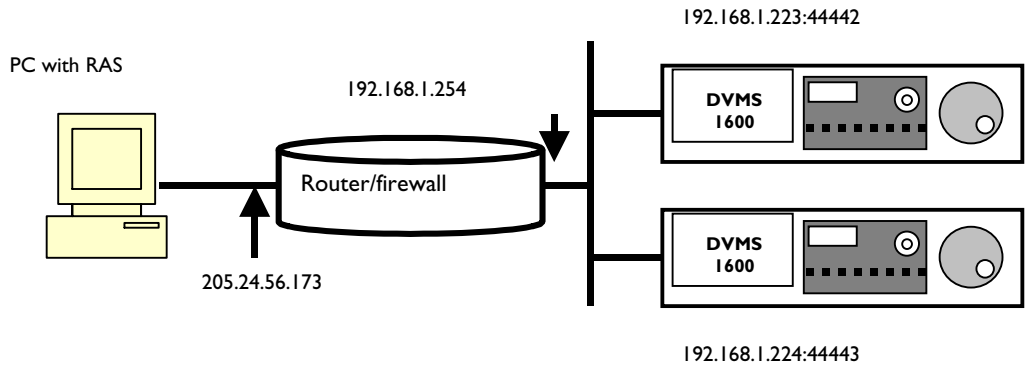
2. Set the Remote bandwidth throttle field to the desired bandwidth (**1** to **250** KBps). When you set this field to 250, the RAS User Preferences screen displays Max.
3. **Accept** these changes and exit this screen.

Note The handling of Ethernet LAN TCP/IP data has been modified to allow for higher bandwidth utilization. Therefore, DVMS 1600/800 units connected by an Ethernet LAN have faster image updates per second.

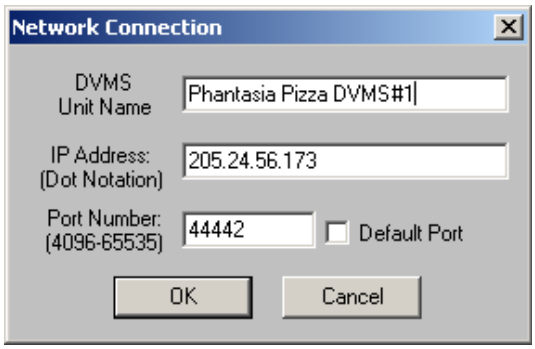
User Definable TCP Port Number for RAS (DVMS 1600 / 800 Duplex Only)

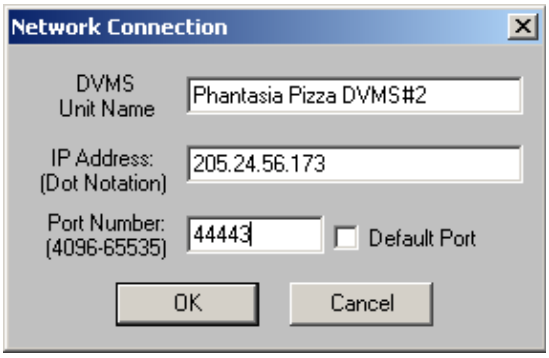
Situation A customer wants to install multiple DVMS 1600/800 units behind a common IP address. The customer's IT department will use TCP port forwarding to accomplish this. They will assign a different destination TCP port number for each DVMS 1600/800.

Solution For RAS to connect to these different DVMS units you must program the different destination TCP port numbers in the Network Connection dialog box as shown in the following figure.



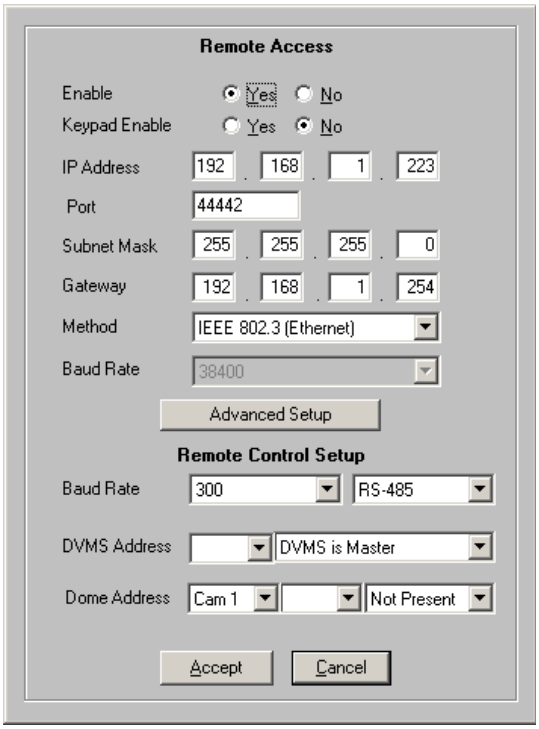
1. From the RAS **Setup** pull-down menu, select **Network Connection**.
2. Press **Add** or **Edit** to program the TCP port numbers.



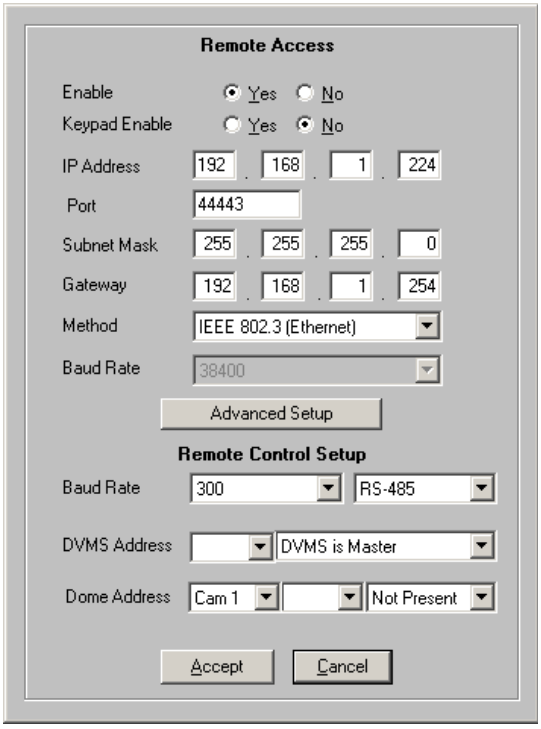


Note The factory default TCP port number is 44442. If you do not require port forwarding, you do not need to change the RAS TCP port or the DVMS TCP port.

DVMS #1



DVMS #2



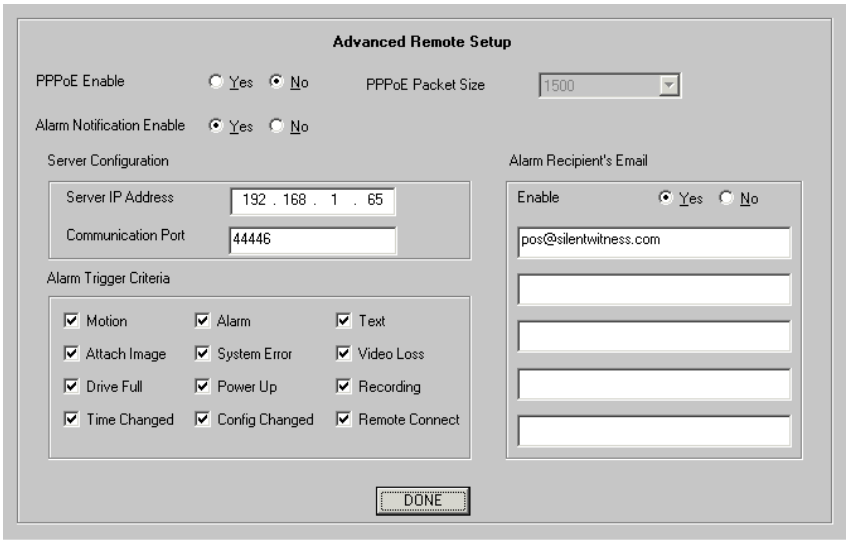
Both of the above DVMS units are behind a common IP address. What separates them is the Destination TCP port number. In this example, the customer's router or firewall will be IP address 205.24.56.173. The Customer's router or firewall will be programmed for port forwarding.

In the port forwarding table:

- When destination TCP port 44442 is detected, the destination IP will be converted to DVMS #1 IP address 192.168.1.223.
- When destination TCP port 44443 is detected, the destination IP will be converted to DVMS #1 IP address 192.168.1.224.

You must also program the DVMS 1600/800 units to decode these TCP destination port numbers in the Remote Access screen as shown above. The Gateway IP in the DVMS units is the IP address of the customer's internal gateway or firewall.

When DVMS #2 is connected via RAS, it will send its packets to the gateway with the destination IP of the RAS PC but with a source IP of the DVMS #2 of 192.168.1.224. The gateway will then convert this source address to 205.24.56.173 before forwarding it on to the RAS PC.



Multiple RAS Users (DVMS 1600 / 800 Duplex Only)

Up to three different PCs with RAS can connect to the same DVMS 1600/800 unit simultaneously. All three can perform live camera view operations at the same time but only one can perform system searches or system configuration at a time. No additional programming is required for this functionality.

5

Operation

This chapter explains how to:

- Connect RAS to a DVMS
- Use the RAS desktop
- Set RAS preferences

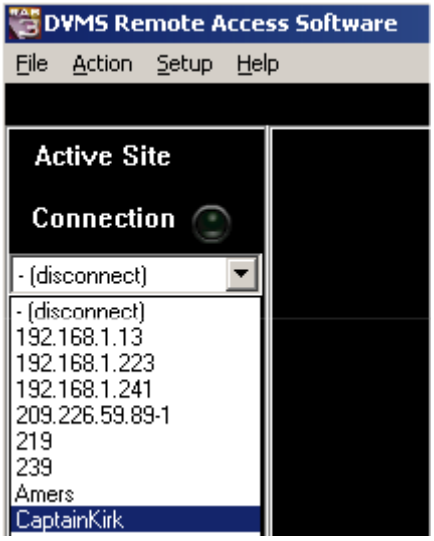
Launching RAS

To start the RAS application, either:

- Double-click the RAS icon on your desktop OR
- If you accepted the program defaults during installation, click **Start**, then select **Programs ➤ Gyyr ➤ DVMS RAS**.

Connecting to a DVMS

1. Pull down the connection box in RAS and click on the DVMS unit you wish to connect to, as shown below.



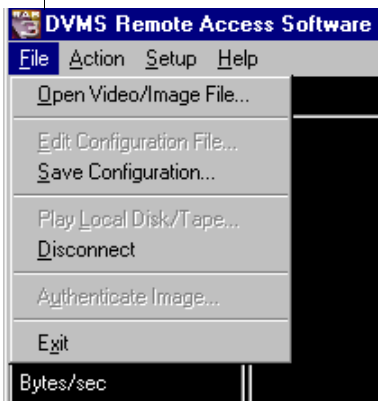
2. When the login screen appears enter the user name and password and click **OK**. The factory default is USER 1 and password 1234 (the user name is case sensitive).

RAS Desktop

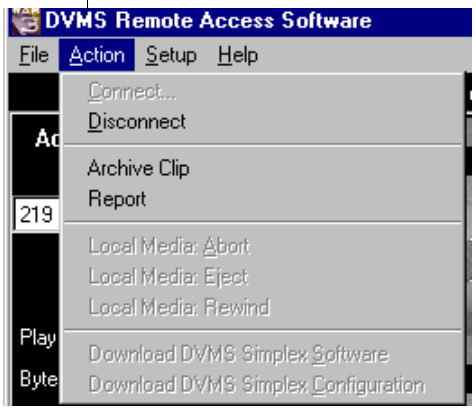
The RAS desktop is the primary user interface for the remote system. It allows overall control of what is displayed on the PC monitor, whether live or previously recorded video. The RAS desktop makes commonly used functions directly accessible on the desktop with controls similar to those from a standard timelapse VCR and multiplexer.

RAS menu bar
Select a menu option to display drop-down commands.

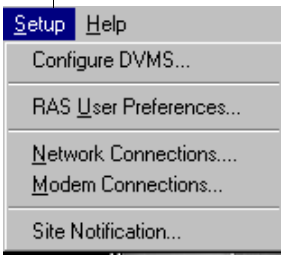
File menu options



Action menu options

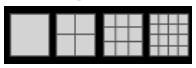
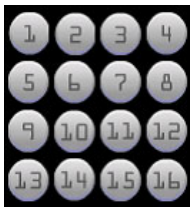


Setup menu options



RAS Viewer Options

The following table describes the options available on the RAS desktop controls after site connection for each DVMS model.

Function	DVMS model		
	DVMS 100 **DVMS 100*Simplex***	**DVMS 400*Simplex***	**DVMS 800*Duplex* /** **DVMS 1600*Duplex*** **DVMS 800*Simplex*** **DVMS 1600*Simplex***
Active Site	Selects the site that the RAS connects to for remote operation. After you select the site from the pull-down list and you enter a User Name and Password when prompted, connection is established. To disconnect, select **Disconnect** from the active site list.		
View Select	Use these buttons to select the specific camera and views to display during monitoring and playback on the PC output monitor. These view options are typical of a video multiplexer.		
- Multiple Cameras 	Only the single view button is accessible.	Only the single view and quad view buttons are accessible.	All multiple camera view buttons are accessible.
- Single Camera View 	When interfaced with a compatible multiplexer, the current camera view becomes highlighted and the buttons cannot be clicked. Use the Previous/Next Camera buttons to change camera views.	Cameras 1 to 4 are accessible if enabled.	DVMS 800: Cameras 1 to 8 are accessible if enabled. DVMS 1600: Cameras 1 to 16 are accessible if enabled.
- Previous/Next Camera	Advance to the next or previous camera view. Two or more cameras must be enabled to use this feature.		
- Auto-sequence Cameras	Not functional.	Functional if two or more cameras are enabled.	
PC Storage	Allows images to be moved from the remote DVMS unit to the local PC in either a still or video format. These files are stored in a file structure that simplifies finding and locating the information after storage.		
- Still	Click the left mouse button to save the image currently displayed in the main viewing screen on the local PC. The image is saved in a .bmp file format in the selected directory chosen in the RAS User Preferences screen.		

Function (cont'd)	DVMS model		
	DVMS 100 **DVMS 100*Simplex***	**DVMS 400*Simplex***	**DVMS 800*Duplex* /** **DVMS 1600*Duplex*** **DVMS 800*Simplex*** **DVMS 1600*Simplex***
- Video 	Click the left mouse button once to start recording the live video displayed in the RAS Viewer window. Click the left mouse button a second time to stop recording. Clips are saved in .dfv file format in the selected directory to the local PC in the selected directory chosen in the RAS User Preferences screen. DFV clips can only be viewed with RAS.		
Utilities			
- Archive 	Opens the Archive Clip menu (see *Archiving Video on a Remote DVMS*, page *87*). You can archive (copy) either a whole video clip, partial (up to 29 minutes 55 seconds original time length), or an individual image to an archive device in the DVMS unit.		
- Report 	Create and run reports without stopping the daily recording.	Opens the Select a report screen after a clip has been selected. See *Creating and Running Reports Using RAS*, page *60*.	Opens the General Setup screen for reports after the clip has been selected.
- Print 	Print the present image in the RAS Viewer window directly to a printer.		
Monitor			
- Live 	Click the left mouse button to enable or disable live view monitoring. This is a toggle button.		
- Freeze 	Click the left mouse button to freeze or unfreeze live video in the RAS Viewer window. Live view monitoring must be enabled prior to performing this operation. This is a toggle button.		
Site Status	Indicators provide up-to-date status from the currently active site to the desktop. This information is valid only when RAS is actively connected to a DVMS unit.		
VCR Playback Controls	Record, play, search, and review video information from the actively connected DVMS unit, or play back video data that has been transferred to the local PC hard drive.		
- Playback Controls 	These controls initiate playback of the latest video information from the hard drive. The playback control buttons, together with the search function, can also be used to review video data.		
⏮	Go to previous clip		
◀◀	Play fast reverse		

Function (cont'd)	DVMS model		
	DVMS 100 **DVMS 100*Simplex***	**DVMS 400*Simplex***	**DVMS 800*Duplex* /** **DVMS 1600*Duplex*** **DVMS 800*Simplex*** **DVMS 1600*Simplex***
◄	Play reverse		
■	Stop playback		
►	Initiates playback, or play forward (in real time)		
►►	Play fast forward		
►|	Go to next clip		
◄ II	View previous image		
II	Pause play		
II ►	View next image		
- Search	Provides a Clip Search menu on the DVMS main drive(s) or archive drive(s). After the specific clip is found, you can use the normal playback operations to review video data.		
	Search screen displays with one set of camera inputs.	Search screen displays with four sets of camera inputs.	Search menu displays with 16 sets of camera inputs.
- Record	Click the left mouse button to enable or disable recording to the DVMS. This is a toggle button.		

Setting Up RAS Operations

Use the RAS pull-down menus to tailor desktop operation to your individual preferences. You can:

- Build case files remotely from the DVMS unit.
- Upgrade software
- Change DVMS configuration parameters to support new requirements.

The following table describes the RAS menus.

Menu	DVMS model		
	DVMS 100 **DVMS 100*Simplex***	**DVMS 400*Simplex***	**DVMS 800*Duplex* /** **DVMS 1600*Duplex*/** **DVMS 800*Simplex*** **DVMS 1600*Simplex***
File	This menu contains items from RAS for basic PC file system operation.		
- Open Video/Image File	Open and display stored clips or images stored on the local PC.		
- Edit Configuration File	Edit a previously stored DVMS configuration on the local PC.		
- Save Configuration	Save a present DVMS configuration file to the local PC. Configuration files are specific for each DVMS model. This operation must be performed while remotely connected.		
- Play Local Disk/Tape	Play from disk or tape on the local PC.		
- Disconnect	Disconnect from a remote DVMS unit.		
Authenticate - Image	Allows authentication of images:		
	For one camera view only.	For up to four camera views.	DVMS 800: For up to 8 camera views. DVMS 1600: For up to 16 camera views.
- Exit	Exit from RAS.		
Action	This menu contains RAS items that require external action operation.		
- Connect	Connect to a remote DVMS unit.		
- Disconnect	Disconnect from a remote DVMS unit.		
- Archive Clip	Displays the Archive Clip menu.		
- Report	Create and run reports without having to stop the DVMS unit from recording.		
	Displays the Report Selection menu after a clip has been selected.		Displays the General Report Setup Menu for Reports after a clip has been selected.
- Local Media: Abort			
- Local Media: Eject			
- Local Media: Rewind			
- Download DVMS Software	Update firmware from the PC to the DVMS unit remotely.		

Menu (cont'd)	DVMS model		
	DVMS 100 **DVMS 100*Simplex***	**DVMS 400*Simplex***	**DVMS 800*Duplex* /** **DVMS 1600*Duplex*/** **DVMS 800*Simplex*** **DVMS 1600*Simplex***
- Download DVMS Configuration	Download previously saved configuration file from the PC to the DVMS unit. DVMS configuration files are incompatible between other DVMS models.		
Setup	Allows you to configure a remote DVMS unit the same as you can locally.		
- Configure DVMS	Administrative access must be enabled for the user and recording must be disabled to use this option.		
	Opens the DVMS Configuration menu. Select **Quick Setup** to display the Quick Setup screen. Select **Normal Setup** to display the Normal setup menu.	Opens the DVMS Main menu, allowing access to the setup screens.	Opens the DVMS Main menu, allowing access to the setup screens.
- RAS User Preferences	Opens the User Preferences menu where you can set up RAS preferences.		
- Network Connections	Set up the remote site network connection.		
- Modem Connections	Set up the remote site modem connection.		
- Site Notification	Select the site notification process.		
Help			
- About	Provides an overview of the RAS version that is running.		

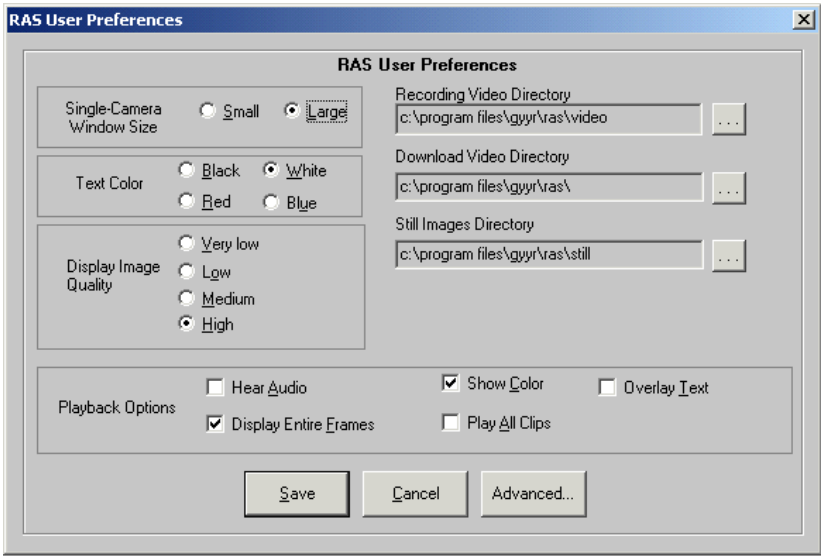
Setting RAS Preferences

For RAS preferences you can:

- Specify monitoring quality
- Set display colors
- Configure file destinations for images stored on the PC
- Set audio playback
- Set a bandwidth throttle

There are two ways to access the RAS User Preferences screen:

- From the **Setup ➤ RAS User Preferences** command.
- Right-click any of the highlighted buttons on the RAS desktop.

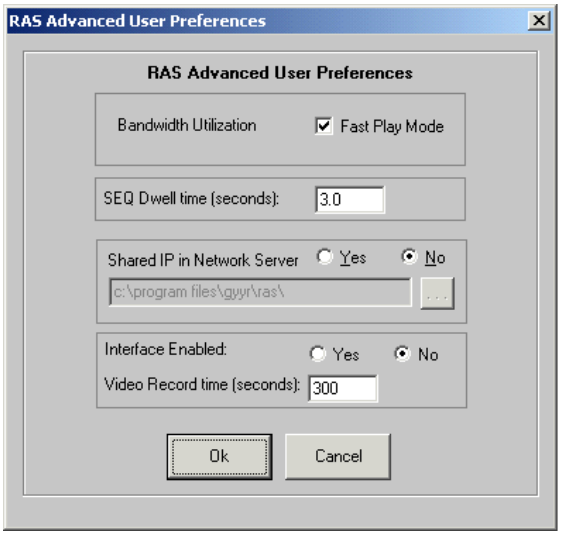


The following table describes the RAS Viewer controls.

Consideration	Control	Description
Quality vs. speed	**Display Image Quality**	Controls the amount of compression that is applied to the live video images before they leave the DVMS unit to be transmitted to the PC. At the highest quality setting the video images are less compressed. This creates bigger files that take longer to transmit and lower the speed at which the video image can be refreshed. At the highest speed settings the video images are more compressed. Some details may be blurred, but the refresh speed is faster. When you play back video clip files, they are sent using the compression that was set on the DVMS when they were recorded.
Maximum refresh rates		To maximize refresh rates, disable Hear Audio and select a lower live monitor image quality setting.
Color vs. monochrome		A color video image file is twice the size of a monochrome (black and white) video image. Monochrome images refresh faster than color images.
Audio vs. no audio	**Hear Audio**	Check this box to monitor live audio when your Video Monitor window is open. This does not affect your video refresh speed. This feature requires that your PC running RAS supports audio functionality and is equipped with the necessary hardware (for example, a speaker).
Text on top of video	**Overlay Text**	Check this box to display text from your Text Insertion ports on top of your video. This does not affect your video refresh speed.

Consideration	Control	Description (cont'd)
Overlay text color	**Text Color**	Check the desired color of any displayed overlay text (from the Text Insertion ports).
Image decompression	**Image Quality**	Select the quality of the image decompression routine used to show video on the Video Monitor window. The speed at which an image can be decompressed depends on the speed of your PC. For this reason, select a lower image quality for a PC with a slower speed.
Monochrome or color video	**Show Color**	Select whether the video in the RAS viewing screen will be in monochrome or color.
Clip playback preference	**Play All Clips**	Check this box to automatically play back the next clip on the clip list after the first clip has ended.
Playback speed	**Fast Forward Speed**	View previously recorded clips at a faster playback speed. This option is set in the RAS User Preferences screen.
Frames or fields display	**Display Entire Frames**	On the DVMS 100 or DVMS 400, use this option to display frames instead of fields. **Note** Enabling this option may result in a higher bandwidth usage level.

The remote connections define the site name, connection method, phone number or IP address, and if they are to be site managed.



Consideration	Control	Description
	SEQ Dwell time	The length of time the video is played for each camera before it moves to the next camera programmed in sequence mode. For more information, refer to the Reference Guide that came with your DVMS unit.
Shared IP		Shared IP in network server. Generally not used. For more information, contact Silent Witness. For networks where you have many PCs wishing to access the same DVMS units, you can share the network connection list. This list is built on a shared drive, the path which you specify in this field. You can allow the RAS software to retrieve the connection list from a drive directory as specified.
	Bandwidth Utilization	Not used in RAS 3.5.
	Interface Enabled	Contact Silent Witness Technical Service for details.

6

Live Monitoring

This chapter explains how to:

- Monitor live video
- Use PTZ cameras supported by RAS
- Monitor audio

Monitoring Video Using RAS

To monitor video from selected cameras:

1. Click the **LIVE** button or any of the active camera buttons on the main screen. A Video Monitor window opens with the video from the selected camera(s).

2. In the View Select area, select how you want the images from the selected camera(s) displayed. Options are:

   Single View, Quad View, Nine Screen, or Sixteen Screen

Note The options available depend on your DVMS model (see *RAS Viewer Options*, page *40*).

3. If you are viewing video from a single camera, you can freeze the live image by pressing **FREEZE**. **FREEZE** is a toggle button. To re-activate the live video, press **FREEZE** again.
4. To close the live video monitor window, click **LIVE**.

The speed at which the video can be refreshed—the number of images per second—is limited by the speed of your connection type (Ethernet, dial-up modem, or modem) and the speed of the processor in your PC.

The size of a single, high quality (10:1 compression), full frame color video image is approximately 35 KB for NTSC. DVMS 1600/800 image files include some additional information which makes the file size slightly larger than the size of the image itself.

Using an Ethernet connection, you can typically display one to 12 fields per second. Using a dial-up modem, you can typically display one field per second or less.

When your PC receives the compressed image file, it decompresses the file and displays it on your Video Monitor window.

RAS Live View Speeds

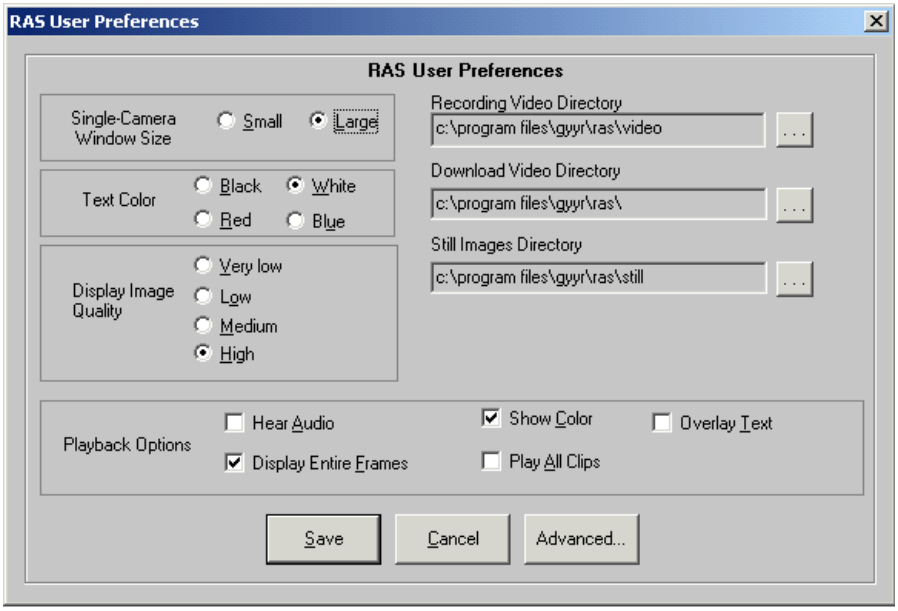
RAS software now instructs the remote DVMS 1600/800 unit to send reduced data size images across the network if the Display Image Quality field is reduced in the RAS User Preferences screen. This allows more live images per second to be sent across the network to the RAS software. The time the RAS software needs to decompress the live images is also reduced as a result of the smaller image data size.

Note This does not effect the recording quality at the DVMS unit. The DVMS continues to record at its locally defined compression rate.

To lower Display Image Quality and improve data transfer speeds:

1. Launch RAS and connect to a DVMS unit, display a live camera view.
2. Note the fields per second and bytes per second values on the RAS screen.
3. Access the RAS User Preferences screen (**Setup** Menu ➤ **RAS User Preferences**).
4. Reduce the Display Image Quality field.

5. Click **Save** to accept changes and return to the live camera view.



6. Stop live video and then re-start by clicking the **LIVE** button twice.
7. The DVMS now sends reduced data images to the RAS software. Note the fields per second and bytes per second values (compare with those in *step 2*).
8. Change to a multiple camera mode. Note the fields per second and bytes per second values (compare with those in *step 2* and *step 7*).

To substantially improve the image updates per second rate when using a live view multiscreen display: reduce the data per image when a live view multiscreen is selected in RAS. This does not effect recording quality.

Pan Tilt Zoom (PTZ) Camera Support by RAS

Remote control of PTZ cameras connected to a DVMS 1600/800 is now possible with RAS for the following cameras:

- Silent Witness Vortex
- Pelco® D
- Kalatel® Cyberdome

Note Storing presets and patterns only works with the Vortex Dome.

Requirements

- DVMS 1600/800 running V2.0 and later firmware
- RAS V3.3x or later
- The PTZ camera must be connected directly to a DVMS 1600/800
- The DVMS must be enabled for PTZ control in the Remote Access menu.

Basic Operation

1. Click on an individual live camera view to select it for PTZ control.
2. In the PTZ Control area, select **Preset**, a number from **1** to **99**, then **RECALL** to go to a user defined live camera view.
3. Select **Pattern**, a number from **1** to **3**, then **RECALL** to execute a user programmed live camera view pattern.
4. Use the controls to move the live camera view as required and to zoom in and out.

A red outline indicates the current camera is selected for PTZ control.

You can still use the PTZ controls in multiscreen mode for the selected live PTZ camera.

To store a preset camera view:

1. Select **Preset** in the PTZ Control area, then select a number from **1** to **99**.
2. Move the live camera view to where you want it.
3. Click **STORE**.

To go to a preset view:

1. Select **Preset**, then select the preset number.
2. Click **RECALL**.

To store a pattern (only works with Vortex):

1. Select **Pattern**, then select a number from **1** to **3**.
2. Click **STORE**.

   The text `Programming Pattern` appears on the live camera view.
3. Use the PTZ controls to take the camera through the pattern you wish to store.
4. When finished, click **STORE** again.

To execute:

1. Select **Pattern**, then the number.
2. Click **RECALL**.

To stop the pattern, click anywhere on the PTZ control.

Monitoring Audio Using RAS

To monitor audio with RAS, your PC needs the following hardware:

- PC sound card
- PC speakers or headphones
- Amplified microphone at the DVMS remote site

To monitor live audio:

Step one: Check connections

Before you begin to monitor live audio:

- Ensure that the microphone at the DVMS remote site is powered and connected to the Audio In jack on the DVMS rear panel.
- The local PC that you use to monitor live audio must have a sound card installed.
- Ensure that speakers or headphones are connected to the PC.

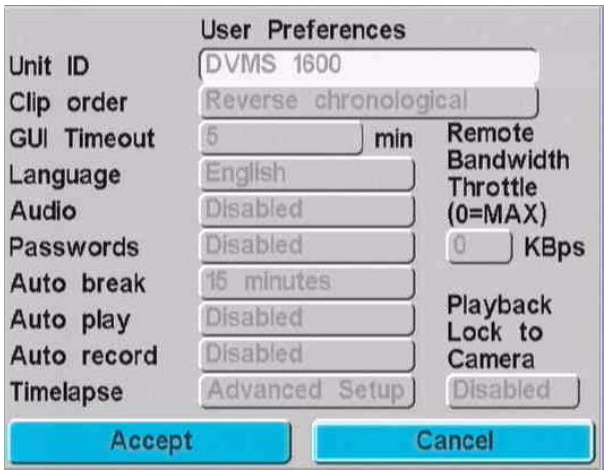
To hear live audio but not record audio, skip *Step two: Recording live audio*.

Step two: Recording live audio

To record live audio:

DVMS 800*Duplex* and DVMS 1600*Duplex*

1. Access the User Preferences screen (**MENU ➤ System Setup ➤ User Preferences**).



2. Set the Audio field to **Enabled**.
3. **Accept** the changes and return to the live recording screen.

DVMS 100, DVMS 400, and DVMS *Simplex*

1. Access the Time-Lapse Recording screen (Main **Setup Menu ➤ Install ➤ Timelapse Recording**).

2. Set the Audio Recording field to **On**.
3. **Accept** the changes and exit this screen.
4. Access the Event Recording screen (Main **Setup Menu ➤ Install ➤ Event Recording**).
5. Set the Audio Recording field to **On**.
6. **Accept** the changes and return to the live recording screen.

Step three: Connect to DVMS unit

1. Launch RAS.
2. On the RAS User Preferences screen (**Setup ➤ RAS User Preferences**), check the **Hear Audio** box.
3. Click **Save** to save the changes and return to the RAS desktop.
4. Click the **LIVE** button to hear live audio.

You can enable or disable audio while connected or disconnected by changing the Hear Audio box on the RAS User Preferences screen.

7

Locating an Incident Fast

This section explains how to locate recorded video in two ways:

- Locate video when the time of the incident is already known
- Use the DVMS report feature to list recorded video clips that fit the specified report criteria

Known Approximate Incident Time

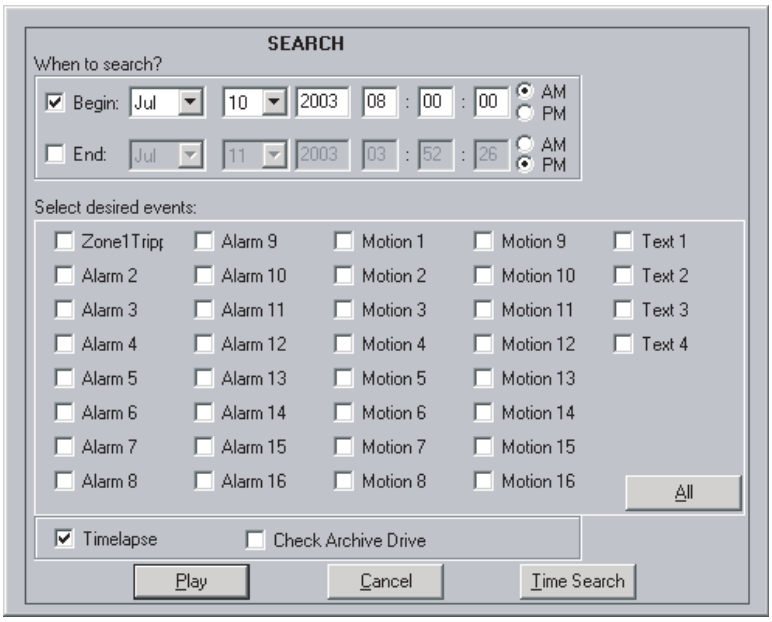
When you know the approximate time of the incident:

1. Click on the Binocular Icon to launch the search menu.

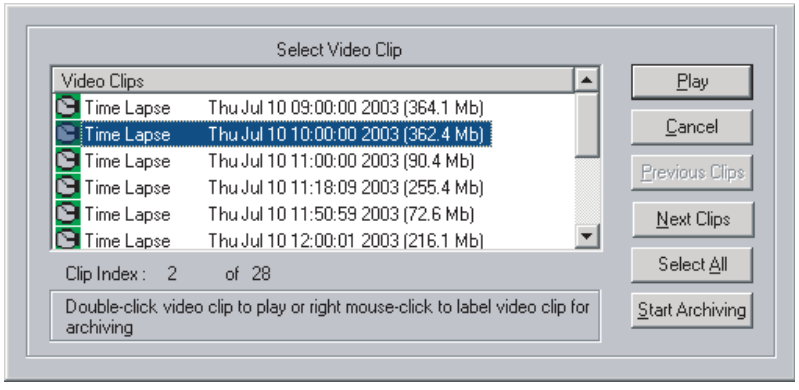
2. Check only **Timelapse** and **Begin** time. Enter a time shortly before the incident, then click **Play**.

   The fastest way to locate incident video is to search specific video clip types. In this example we are searching only timelapse video. If you were searching for another video type (alarm, text, or motion) you would check only the corresponding checkboxes.

In this example alarm 1 has been renamed Zone 1 Trip. All event clips can be renamed to suit user preferences. If you knew that an incident had occurred on a camera associated with Zone 1 Trip you would check only Zone 1 Trip, enter a time to search, and press **Play**.



3. Highlight a clip in the list for fast review and click **Play**.


Select Video Clip
Video Clips
Time Lapse Thu Jul 10 09:00:00 2003 (364.1 Mb)
Time Lapse Thu Jul 10 10:00:00 2003 (362.4 Mb)
Time Lapse Thu Jul 10 11:00:00 2003 (90.4 Mb)
Time Lapse Thu Jul 10 11:18:09 2003 (255.4 Mb)
Time Lapse Thu Jul 10 11:50:59 2003 (72.6 Mb)
Time Lapse Thu Jul 10 12:00:01 2003 (216.1 Mb)
Clip Index : 2 of 28
Double-click video clip to play or right mouse-click to label video clip for archiving
Play
Cancel
Previous Clips
Next Clips
Select All
Start Archiving

4. Click on the individual camera you wish to search.

5. Click the **Fast Forward** button several times until the fast forward speed is 32X. Playback speeds range from 4X to 32X.

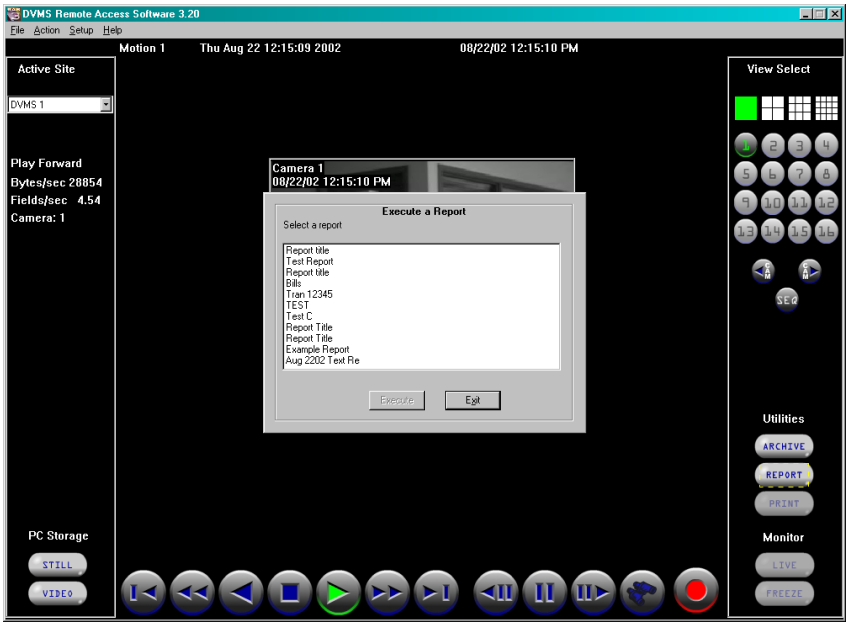
   Watch for the incident.

6. Use the **Previous** or **Next** clip buttons to jump to a different clip in the clip list or press **Stop** to return to the clip list.

7. Once you have located the incident, proceed to *Reviewing Incidents Closely and Printing Pictures* on page *63*.

Creating and Running Reports Using RAS

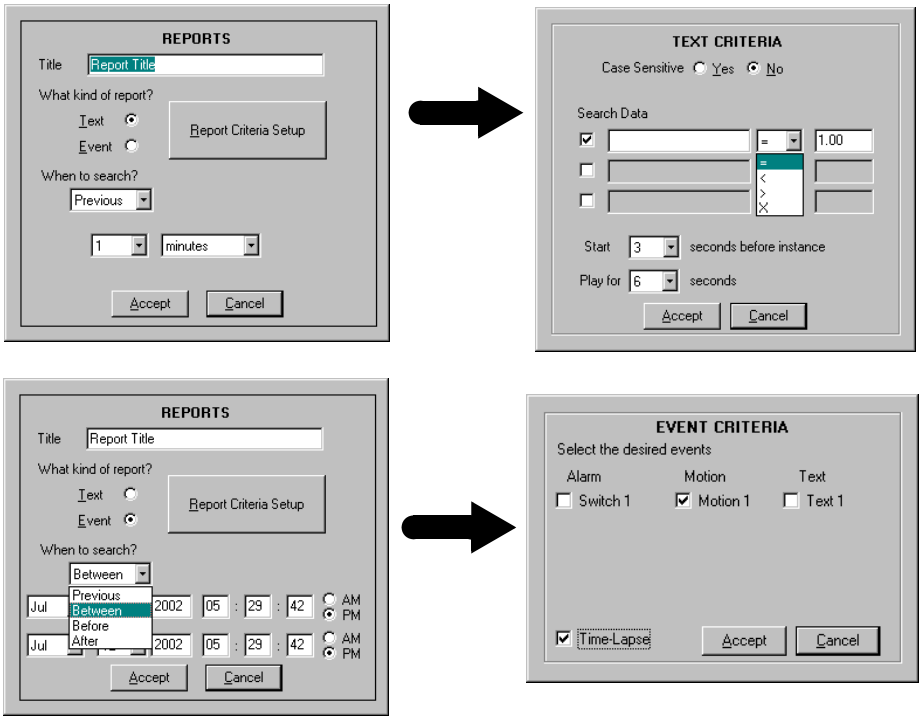
You can use the **REPORT** button to create, edit, delete, and run reports without having to stop the DVMS 1600/800 from recording.



To create a new report:

1. Press the **REPORT** button. The General Setup screen appears.

2. Select Create New Report. The Reports screen appears. This screen may appear slightly different, depending on your DVMS model. Consult your DVMS User Guide, available at www.silentwitness.com for more details on setting up reports.



3. In the Title field, enter an appropriate name.
4. You can create a report based on Text or Events.
5. In the When to search? field, select Previous, Between, Before, or After. The fields on the screen will change, depending on your choice.
6. Select **Report Criteria Setup** to define your search parameters.
7. **Accept** your changes to create the report.

Using the Quick Report Feature

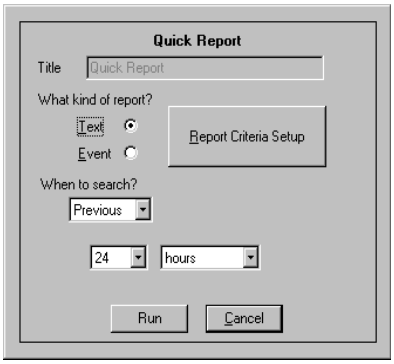
To access the Report function without interrupting the recording:

1. Right-click the **REPORT** button.The Quick Report screen displays.

   a. Select either **Text** or **Event** report.

   b. Set the desired time search parameters.

   c. Select **Report Criteria Setup** and enter the desired report criteria.



2. **Accept** the criteria to return to the Quick Report screen.

3. Select **Run**.

8

Reviewing Incidents Closely and Printing Pictures

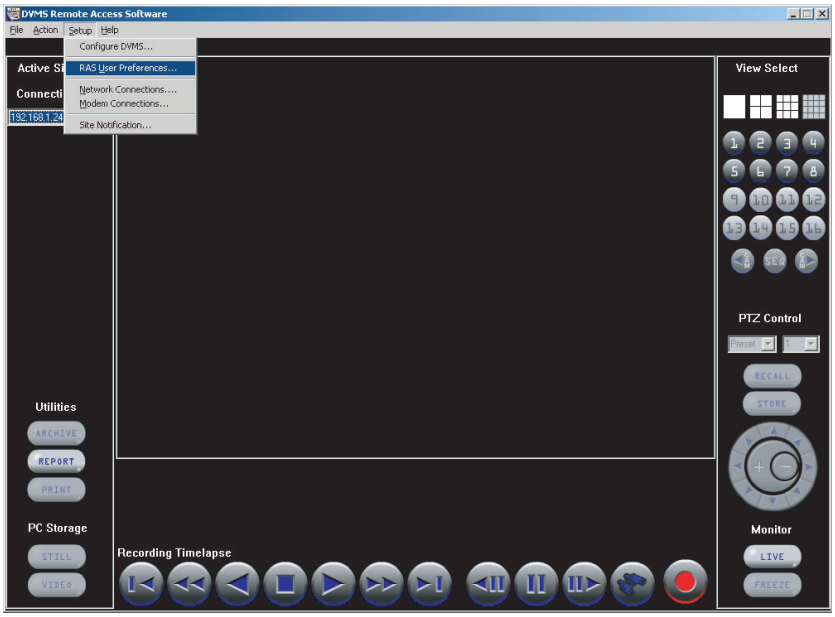
This chapter explains how to:

- Review incidents using speed and frame controls
- Print images

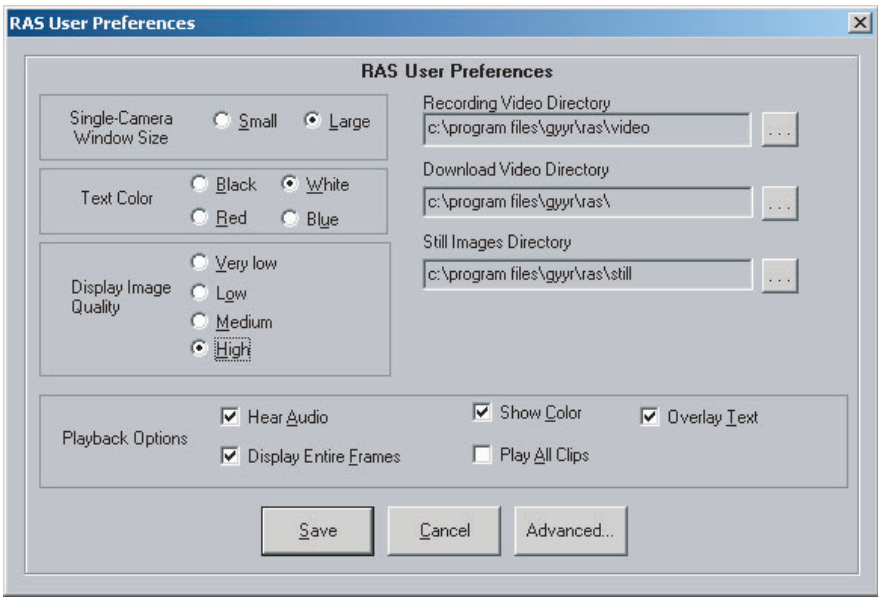
Reviewing Incidents Closely

Once you have located an incident to review carefully, do as follows:

1. Pull down the **Setup** menu and select **RAS User Preferences**.

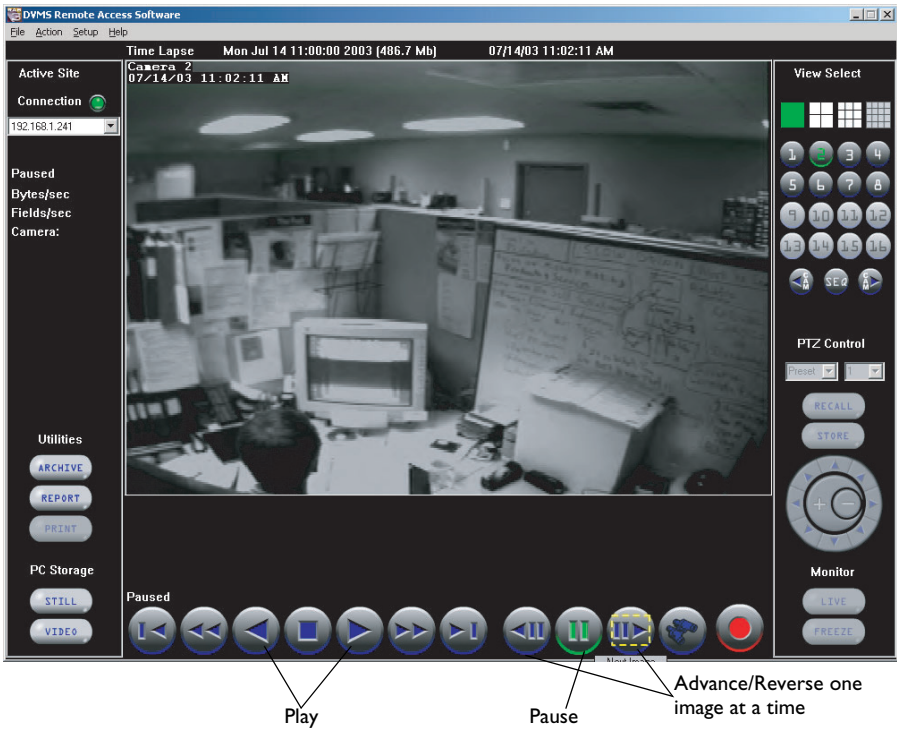


2. Set the display image quality to **High** for best quality video and set the single camera window size to **Large**.



3. Perform a search (see *Locating an Incident Fast* on page *57*) and go to the incident. Now use the controls to:

- Play the incident in real time, forward or reverse
- Play the incident one image at a time
- Pause the image for observation
- Print an image (see *Printing Images* on page *65*).



Printing Images

The **PRINT** button provides a convenient way to send a .bmp file, retrieved from RAS, directly to a printer. There is no need to exit RAS or load a graphics program such as Corel PHOTO-PAINT® or Adobe® Photoshop® to print the picture you just captured.

There are three ways to print images:

Method one:

1. Playback video from a DVMS.
2. Click the **PAUSE** button on the RAS desktop during the image you would like to print.
3. Click the **PRINT** button on the RAS desktop.
4. Select a printer in the Printer drop-down list, then click **OK**.

Method two:

1. Enable the Live View feature so that video is present on the RAS Viewer window.
2. Click the **FREEZE** button on the RAS desktop to capture the image.
3. Click the **PRINT** button on the RAS desktop.
4. Select a printer in the Printer drop-down list, then click **OK**.

Method three:

1. Go to **File ➤ Open Video/Image File**.
2. Using the Open File dialog box, search the Program Files/Gyyr/RAS/Still subdirectory to find the image file (for example, 2002_5_1_7.bmp).
3. Click **OK**.
4. Click the **PRINT** button on the RAS desktop.
5. Select a printer in the Printer drop-down list, then click **OK**.

9

Saving Live or Recorded Video to the PC and Playing it Back

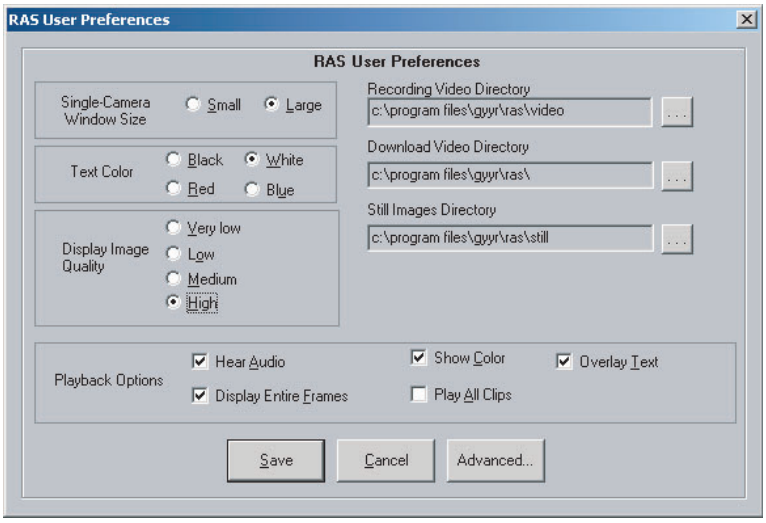
This chapter explains how to:

- Set and access storage directories
- Save video clips and images to your PC
- Email saved images

Setting Storage Directories

Use the default directory (or create a new one) for the video files and still images that will be saved to the PC. Identify the default directory by:

- Left-clicking **RAS User Preferences** under the **Setup** menu in RAS.



Recording Video Directory

Live view video clips will be saved in this directory when you click the **VIDEO** button on the RAS main screen. Use the default directory shown or click the **Browse** button to change the path to the directory you want to use.

c:program files\gyyr\ras30\video\99_10_22_1.dfv

where:

video	is the default subdirectory in your RAS main directory
99_10_22_1 (first image) **99_10_22_2 (second image)**	is the file name for the saved image. The file name consists of the date and an automatically incremented number, following the YY_MM_DD_# format.
.dfv	is the file extension. **Note** DFV files can only be viewed using RAS.

Note After you have saved the file, you can rename it as desired in Windows Explorer.

Download Video Directory

The existing video file recorded on the DVMS unit will be transferred to this directory when you click the **VIDEO** button on the RAS main screen while viewing a previously recorded clip. Use the default directory shown or click the **Browse** button to change the path to the directory you want to use.

Still Images Directory

Still images will be produced in this directory when you click the **STILL** button on the RAS main screen. Use the default directory shown or click the **Browse** button to change the path to the directory you want to use.

c:program files\gyyr\ras30\still\99_10_22_1.bmp

where:

still	is the default subdirectory in your RAS main directory
99_10_22_1 (first image) **99_10_22_2 (second image)**	is the file name for the saved image. The file name consists of the date and an automatically incremented number, following the YY_MM_DD_# format.
.bmp	is the (bitmap) file extension.

Saving Live Images

With a camera view on the RAS monitor, click the **STILL** button with the left mouse button once to save a still image—at that moment in time—in bitmap file format (.bmp) to the local PC.

The **STILL** button momentarily turns green when enabled.

Saving Live Video Clips

With a live camera view selected on the RAS monitor, click the **VIDEO** button with a left mouse click to start saving a video clip—from this moment in time— to the selected directory on the local PC.

The **VIDEO** button turns green when save is enabled.

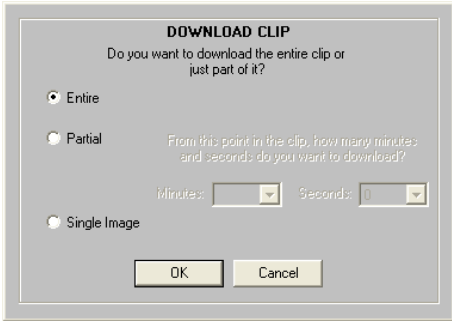
A second left mouse click stops the video clip save. Video must be present in the RAS viewing screen to perform this option.

Saving Existing Video Clips from the DVMS

1. Use the binocular button to initiate a clip search. Select the desired search criteria, then click the **PLAY** button. A list of all matching clips for the selected criteria displays. Select a clip to be played back by highlighting it, then clicking the **PLAY** button.

2. Click the **VIDEO** button to start downloading the video clip to the selected directory on the local PC.

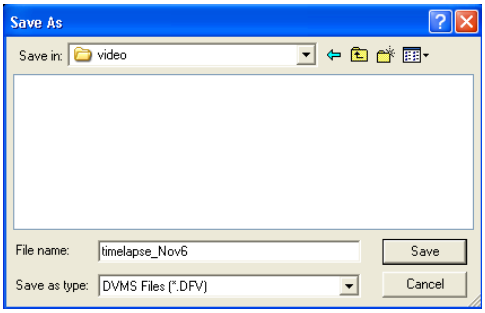
3. The Download Clip window appears, prompting you to select to download the entire clip, a partial section or a single image. After making your selection, click **OK**.



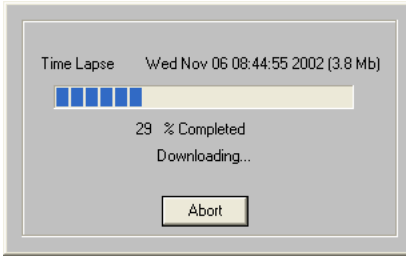
4. Select the destination directory where you would like the clip or image to be downloaded.

   Name the file to be downloaded to the local PC. Ideally, you would want this to be the same directory that you previously selected in the RAS User Preferences Menu.

5. Click **Save**.



6. The status of the download displays. Allow for the download to complete or click **Abort** to cancel the download.



7. Once the desired still images and video clips have been created, disconnect from the remote DVMS recorder and close RAS.

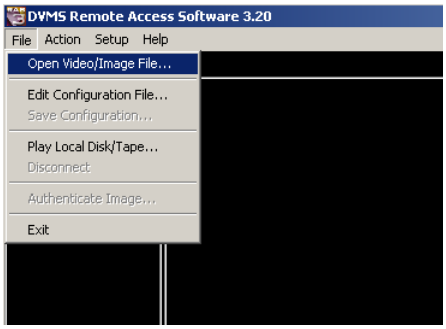
Viewing Saved Video

After image and video files have been saved to the local PC, they may be viewed using RAS. Alternatively, you can e-mail these files from the default recording directory (previously set in the RAS User Preferences screen). You can also print Image files directly using RAS (see *Printing Images*, page *65*).

Note DFV (.dfv) video files can only be played back with RAS. BMP (.bmp) image files can be viewed using RAS or a photo editing program (for example, Microsoft® Paint).

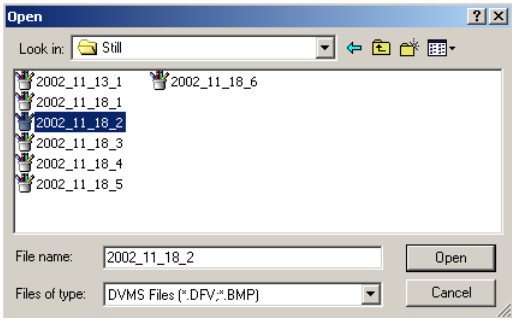
To view an image or video file:

1. Launch RAS.
2. Click **File ➤ Open Video / Image File**. A Windows Directory explorer screen displays.



Viewing Still Images

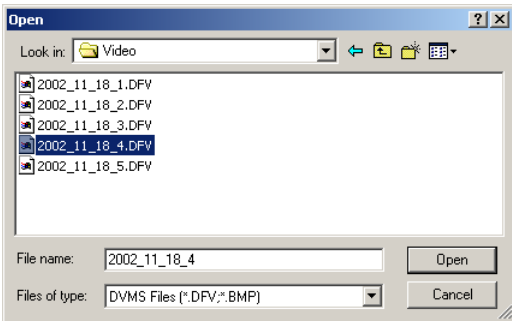
1. To view a still image, navigate through the folders to the Still Images Directory, (previously set in the RAS User Preferences screen). Double click the desired image file or highlight it, then click **Open**.



2. When finished viewing the image, click the **Stop** button in the VCR controls.

Viewing a Video Clip

1. Tor view a video clip, navigate through the folders to the Recording Video Directory or Download Video Directory (previously set in the RAS User Preferences screen).
2. Double click the desired image file or highlight it, then click **Open**.



3. Use the VCR controls in the lower part of the screen to play back the clip.
4. When finished viewing the clip, click the **Stop** button.

Emailing Still Images

Emailing images captured images from your DVMS is as easy as attaching a file to any email you send.

From your email composer, click **Attach**, click **Browse**, and navigate to the Still images directory.

The default location of your still images directory is:

C:\\Program Files\GYYR\RAS\Still

Still images are saved with BMP extensions, this is a very common PC image format that is compatible with numerous viewing programs. For example:

2003_7_4_1.BMP (this image is the first image recorded on July 4, 2003)

Click on the image file you wish to attach and click **OK**.

10

Making an Evidence CD

This chapter explains how to:

- Transfer video clips and still images to a local personal computer (PC), then onto a CD, along with the CD Viewer application software
- View the files using a PC or laptop with a compatible CD or DVD-ROM drive without installing additional software

Creating a Portable CD

Step 1 Remotely connect to the DVMS.

Step 2 Save video clips to the PC (see *Section 9*).

Step 3 Save clips and viewer to a CD.

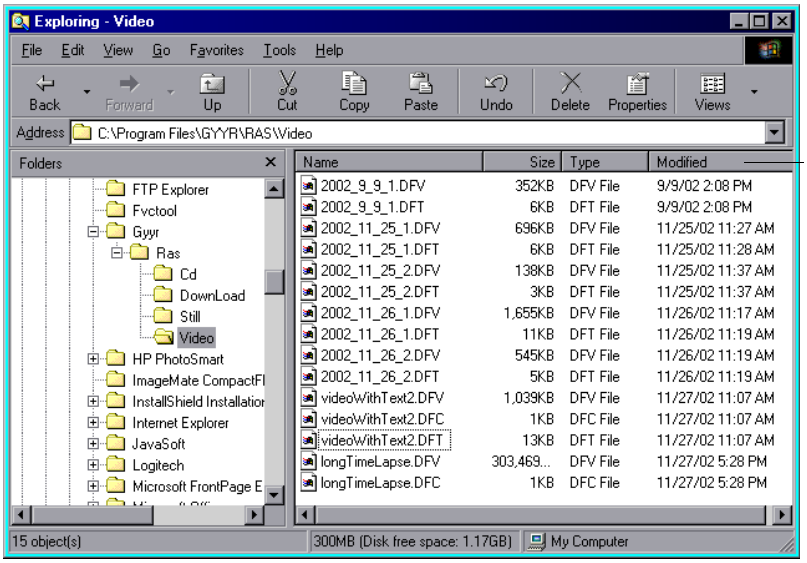
1. Launch your CD writing application on your PC.
2. Include all the video clips and still images you want to save in the project area of your new CD that you will create.

   You can save all the files you saved in the PC directories or select individual clips. If you choose to save specific clips, make sure you save all the files associated with the clip. One clip can have from one to four files associated with it. For example:

IncidentOne.DFV	Where:
IncidentOne.DFC	IncidentOne is the file name for this clip.
IncidentOne.DFT	DFV, DFC, DFT, or DFA is the file extension (type).
IncidentOne.DFA	

   In the above example, you must save all four of these files together to the CD. During playback the DVMS CD Viewer combines all the files into one video clip.

Example: Files Found in Windows Explorer to Copy to Your CD


Exploring - Video
File Edit View Go Favorites Tools Help
Back Forward Up Cut Copy Paste Undo Delete Properties Views
Address C:\Program Files\GYYR\RAS\Video
Folders
FTP Explorer
Fvctool
Gyyr
Ras
Cd
DownLoad
Still
Video
HP PhotoSmart
ImageMate CompactFl
InstallShield Installatior
Internet Explorer
JavaSoft
Logitech
Microsoft FrontPage E
Name Size Type Modified
2002_9_9_1.DFV 352KB DFV File 9/9/02 2:08 PM
2002_9_9_1.DFT 6KB DFT File 9/9/02 2:08 PM
2002_11_25_1.DFV 696KB DFV File 11/25/02 11:27 AM
2002_11_25_1.DFT 6KB DFT File 11/25/02 11:28 AM
2002_11_25_2.DFV 138KB DFV File 11/25/02 11:37 AM
2002_11_25_2.DFT 3KB DFT File 11/25/02 11:37 AM
2002_11_26_1.DFV 1,655KB DFV File 11/26/02 11:17 AM
2002_11_26_1.DFT 11KB DFT File 11/26/02 11:19 AM
2002_11_26_2.DFV 545KB DFV File 11/26/02 11:19 AM
2002_11_26_2.DFT 5KB DFT File 11/26/02 11:19 AM
videoWithText2.DFV 1,039KB DFV File 11/27/02 11:07 AM
videoWithText2.DFC 1KB DFC File 11/27/02 11:07 AM
videoWithText2.DFT 13KB DFT File 11/27/02 11:07 AM
longTimeLapse.DFV 303,469... DFV File 11/27/02 5:28 PM
longTimeLapse.DFC 1KB DFC File 11/27/02 5:28 PM
15 object(s)
300MB (Disk free space: 1.17GB)
My Computer
Modified column

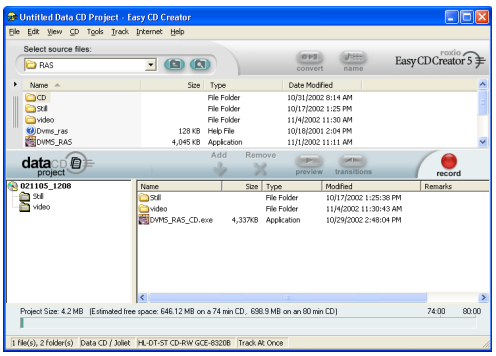
To sort the files according to the time they were modified, click on the **Modified** column. Windows Explorer will put all the individual files with the same file name adjacent to one another, making it easier for you to identify all the files you want to copy to the CD for an individual video clip.

3. Include the file named DVMS_RAS_CD.exe in the project area of the new CD to be created. This file is the DVMS CD Viewer application that is required to view the video clips when the portable CD is used in another PC or laptop. If default settings have been accepted during the RAS 3.30 installation process, the file may be found at the following location:

   C:\Program Files\Gyyr\Ras\CD\DVMS_RAS_CD.exe.

   The file layout for the CD should look similar to the following:

Example: CD Layout Shown for Windows® XP Professional/Roxio Easy CD Creator® 5.



4. Insert a blank CD-R or CD-RW into the CD-Writer.
5. Start recording the portable CD and allow for the recording process to end.

6. After the recording process has ended, exit RAS.

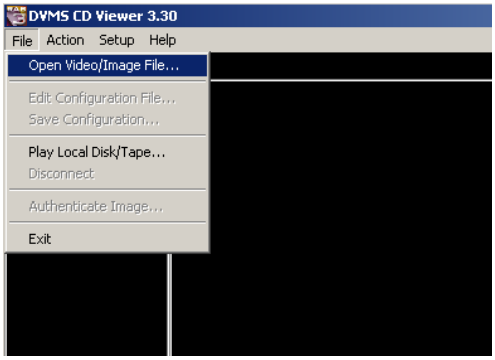
This completes the portable CD creation process. You are now ready to view still images and playback video clips directly from the CD.

Using a Portable CD

To view the CD video clips on another PC, follow the procedure below.

IMPORTANT While you are running the DVMS CD Viewer application, you cannot remotely connect to a DVMS recorder.

1. Insert the created CD into the CD Viewer CD-ROM or DVD-ROM drive.
2. Double-click the file named DVMS_CD_RAS.exe on the recorded CD. This will start the DVMS CD Viewer application.
3. Select the desired still images or video clips to be viewed by selecting **Open Video/Image File** from the drop-down menu in DVMS CD Viewer. Use the Windows file browser to locate still images or video clips.



4. Use the highlighted **VCR controls** on the bottom of the Portable RAS Viewer main screen to play back video clips. After you have viewed each video clip (or still image), click the Stop button in the VCR controls before selecting another clip.

5. To exit the DVMS CD Viewer, select **Exit** under the **File** drop-down menu or click the Close icon located in the top right-hand corner of the DVMS CD Viewer application.

   Ensure that the stop button in the VCR controls has been clicked before you exit the DVMS CD Viewer.

   IMPORTANT **Do not remove the CD from the CD-ROM / DVD-ROM drive until the Portable RAS Viewer application has been closed**.

11

Authenticating an Image / Video

This chapter explains how to:

- Obtain the secret key for authentication
- Authenticate an image

DVMS Recorded Video Format

All DVMS units record video clips in a proprietary, secure format. During the recording process, the DVMS embeds the electronic serial number unique to the unit and a checksum into each image. Each image can be accessed for authenticity verification using a remote PC running the Remote Access Software (RAS) application.

To verify image integrity, you need a secret key available by calling Silent Witness Technical Service. The secret key is unique for each DVMS unit. This key is entered into the appropriate RAS field to verify that the image is unaltered and original.

Obtaining the Secret Key

To acquire the secret key, please follow these steps:

1. Make a note of the serial number of the original DVMS unit. You can find the serial number either by accessing the DVMS via RAS (Stop recording). On the **Setup** menu select **System Setup ➤ System Info ➤ Serial Number**) or via the DVMS front panel (**MENU ➤ System Setup ➤ System Info ➤ Serial Number**).
2. Call Silent Witness at **1.800.893.9513** (North America) or **+44 (0) 208.443.8765** (UK and Europe) and ask for Technical Support.
3. Identify yourself and state your purpose. Provide Technical Support with the DVMS serial number.
4. Normally, Silent Witness will only give out the password to the original end user listed on the purchase invoice. You may be asked to fill out a request form or provide other information. Technical Support will then provide the Secret Key.

Authenticating the Image

1. From RAS, find and open the desired .dfv clip (**File ➤ Open Video / Image File**).
2. Play the clip using the VCR-like Play Back Controls located at the bottom of the RAS Viewer screen. Press **Pause** to select the image you wish to authenticate, then select **File ➤ Authenticate Image** from the main RAS menu.
3. At the prompt, enter the secret key that you previously obtained from Silent Witness.
4. If the secret password matches the embedded key, then the image is considered secure. A message onscreen tells you that the image has been authenticated.

Note The password can be used subsequent times on any PC running RAS and still function properly. The password is also valid for any other clips extracted from the same DVMS unit.

12

Routine Maintenance

To keep your DVMS unit in top operating condition, Silent Witness recommends that you:

- Visit the Silent Witness web site regularly for the most current Product documentation.
- Acquire the latest DVMS firmware and RAS software files from the Silent Witness web site at www.silentwitness.com.
- Back up your custom DVMS configuration file whenever you:
  - Upgrade your DVMS firmware and RAS software, or
  - Make configuration changes to your DVMS

Note Configuration file compatibility is specific to the DVMS model and the current firmware version over which the configuration file was saved.

For example, a configuration file that was saved on a DVMS unit running firmware version 1.41G cannot be loaded onto a DVMS unit running firmware version 1.50B.

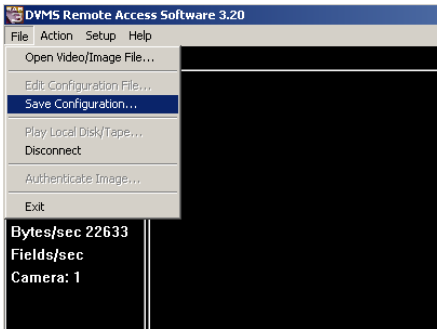
Managing Configuration Files

Saving a DVMS Configuration File

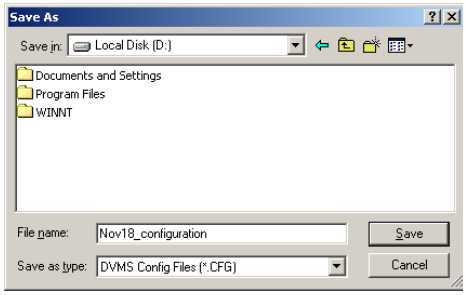
To save a DVMS configuration file:

1. Remotely connect to the DVMS using a network or modem connection.
2. Stop recording.

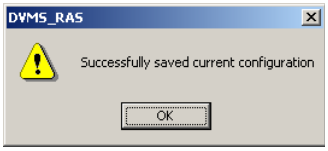
3. Click **File ➤ Save Configuration**.



4. You will be prompted to:
   a. Enter a name for the configuration file.
   b. Choose a directory where the saved configuration file will be saved.



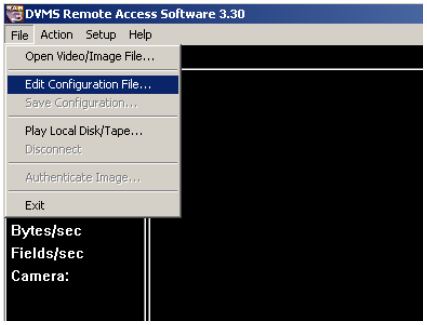
5. Click the **Save** button. A message appears confirming that the configuration has been saved.
6. Click **OK.**
7. Enable recording.



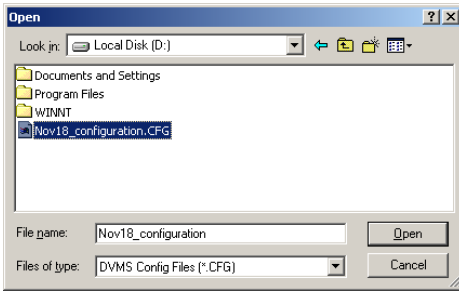
Editing a DVMS Configuration File

To edit a configuration file, you must be disconnected from the DVMS.

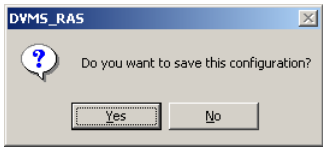
1. Click **File ➤ Edit Configuration File**.



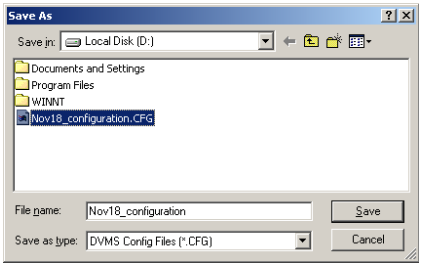
2. Locate the configuration file you wish to edit. Double click or highlight the file, then click **Open**.



3. Click **Setup ➤ Configure DVMS**. The DVMS Main Menu displays.
4. Change the configuration of the DVMS as desired, then exit this menu. After exiting the DVMS Main Menu, you will be prompted to save the configuration.
5. Click **Yes** to save the configuration.



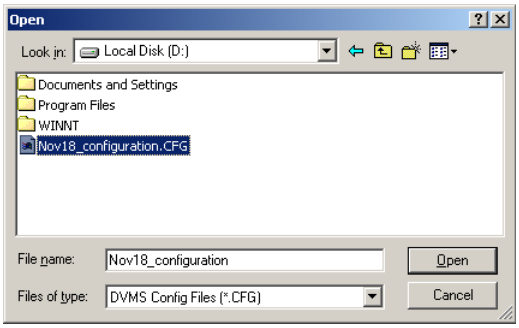
6. You may now re-write over the existing configuration file stored on the local PC or create a new one.
7. After naming the file, click **Save**.



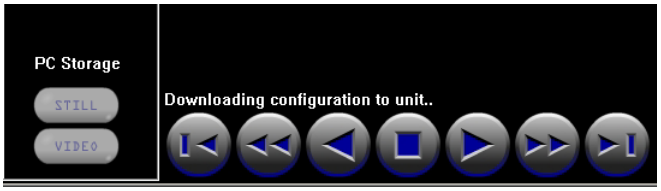
Downloading a Configuration File

1. Remotely connect to the DVMS using a network or modem connection. Recording must be disabled before you download a configuration.
2. Click **Download DVMS 800/1600 Configuration** (this file name depends on your DVMS model).

3. Locate the configuration file to be downloaded on the local PC. Click **Open**.



4. A message displays on the bottom of the RAS screen indicating the status of the configuration download. When the status message disappears, the configuration download is complete.



DVMS Firmware and RAS Software Upgrade

Step one Download latest DVMS firmware and DVMS RAS software to the PC

1. Connect to the Silent Witness web site at www.silentwitness.com with a computer (PC) that you will use to perform the upgrade, as the downloaded files are large and not easily transportable from PC to PC.
2. Access the Products page for your DVMS model.
3. Download the latest firmware for your DVMS model into a *temp* subdirectory on the PC.

Note DVMS firmware files are specific for each DVMS model. The files are incompatible between DVMS models. Please ensure that you download the specific firmware file for your DVMS model.

---

4. Download the latest RAS software into a *temp* subdirectory on the PC.
5. Disconnect from the Internet.

Step two Unzip DVMS firmware and DVMS RAS software files

1. Double-click the DVMS firmware file (for example, for the DVMS 800*Duplex* or the DVMS 1600*Duplex*, download ***dvms1600_800_firmware_1pxxG.exe***[1] and then select **Unzip**). This becomes the file *16il_xxg.bin* that you will later download into the DVMS unit. This file replaces the Operating System and Main Program but does not delete any previous configurations in the DVMS unit.

Note This file name will depend on your DVMS model. See note above.

2. Double-click the RAS software file (for example, select ***dvms_ras_xpxx.exe***) to unzip the file. Three files are created in the *temp* subdirectory.

Note Do not run *Setup.exe* at this time.

Step three Upgrade RAS software on the PC

1. Please make sure that you remove any previous versions of RAS prior to installing the latest release of RAS.

   Run ***Setup.exe*** for the new version of RAS in the *temp* subdirectory, then select **Remove** on the initial startup screen.

   If you wish to keep any previous IP addresses or modem phone numbers, select **Yes** when prompted to save previous configuration information. Otherwise, you will need to re-enter this information when you install the new version of RAS.

   When the old version of RAS is completely removed, it will simply exit back to the Windows Desktop.

2. Run ***Setup.exe*** to actually install the new version of RAS. Press **Next** to install RAS over the default settings in the PC. Continue to press **Next** through all the prompts until finished.

   Note that a DVMS RAS icon has been added to your Desktop.

Double-click the **DVMS RAS** Desktop icon to launch RAS and access your DVMS unit. RAS can also be launched by selecting **Start ➤ Programs ➤ Gyyr ➤ DVMS RAS**.

Step four Download DVMS firmware to the DVMS recorder

1. Connect to your DVMS unit using your CURRENT version of RAS.
2. If the DVMS recorder is currently in record mode, stop it by clicking the **Record** button on the RAS main screen.

[1] *xx* represents the firmware or software release version number.

3. From the **Action** menu, select **Download [model no.] Software** (for example, **Download 800/1600 Software** for a DVMS 1600*Duplex*).
4. Find the binary upgrade file ***16il_xxg.bin*** in the *\temp* subdirectory.

> **Note** This file name will depend on your DVMS model.

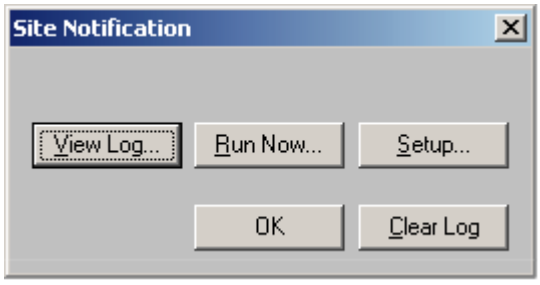
5. Click **OK** to begin downloading (transferring) this file to the DVMS recorder.
6. After the download is complete, you are prompted to reboot the DVMS recorder. Click **OK**. RAS automatically disconnects.
7. Exit RAS.
8. After the DVMS recorder has powered up, it will be in idle mode. To start recording, press **REC** on the front panel.

Site Notification

Site notification is a utility you can enable to run automatically to poll the health of all DVMS units on a daily basis. You can also run this immediately if required. The utility will connect to all units you assign to it and store the status data of each unit in a log file for you to review.

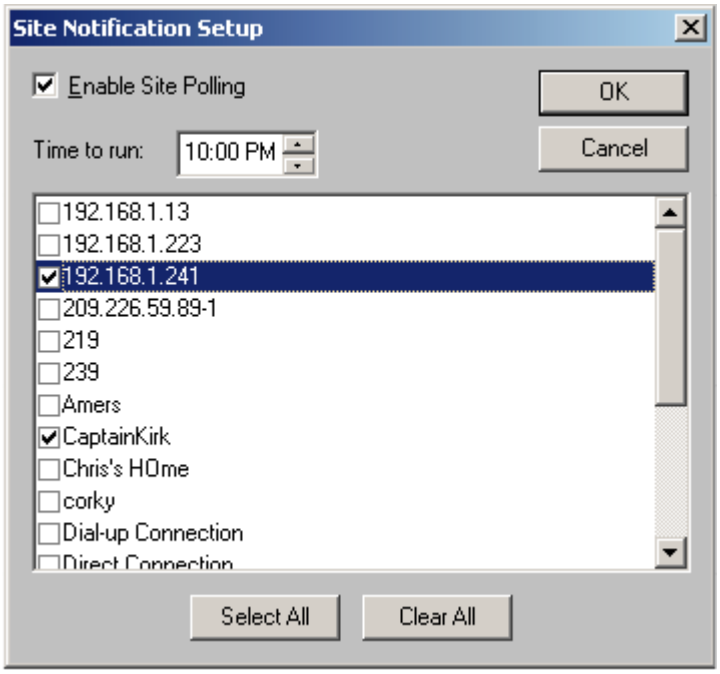
Setup

1. In RAS , pull down the **Setup** menu and select **Site Notification**.

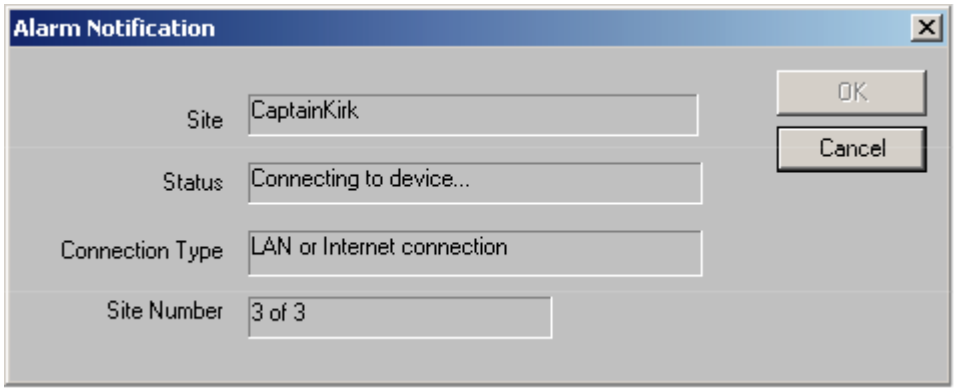


2. Click **Setup** and check the DVMS units you wish to poll for their health status.

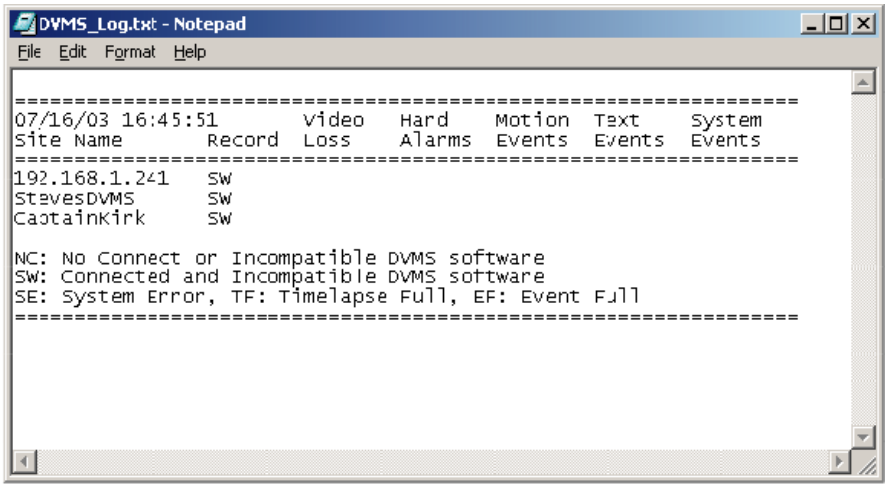
3. Set a time for the poll to occur automatically, and click **OK**.



Note When the site poll is running, connection messages appear as shown below.



Once completed the log file will appear, you can also access it by opening the Site Notification dialog box and selecting **View Log**.



13

Archiving Video on a Remote DVMS

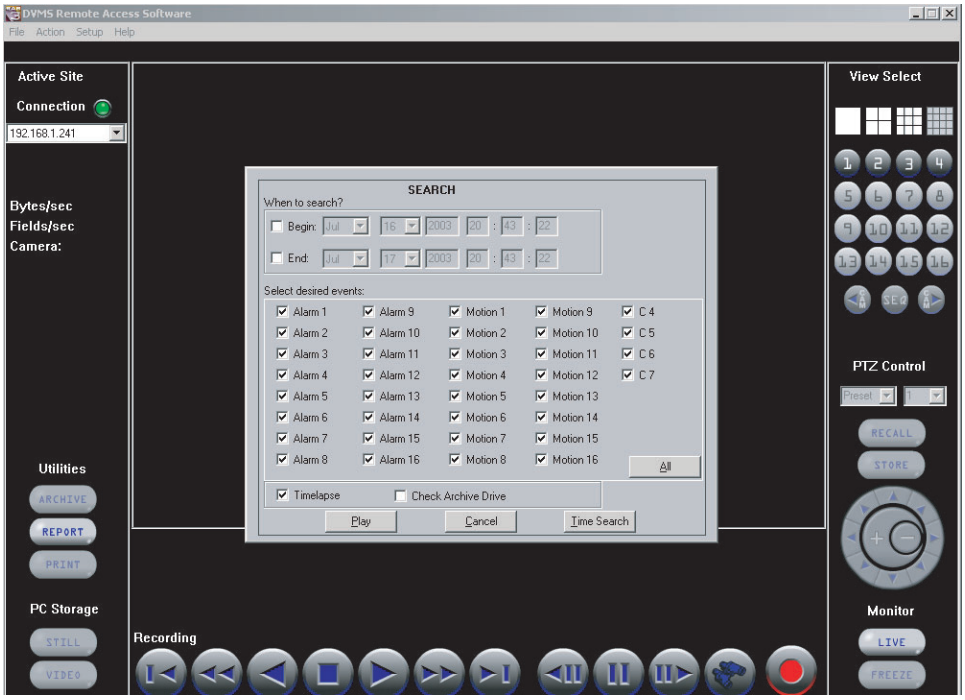
This chapter explains how to:

- Save video clips to an archive drive on a remote DVMS

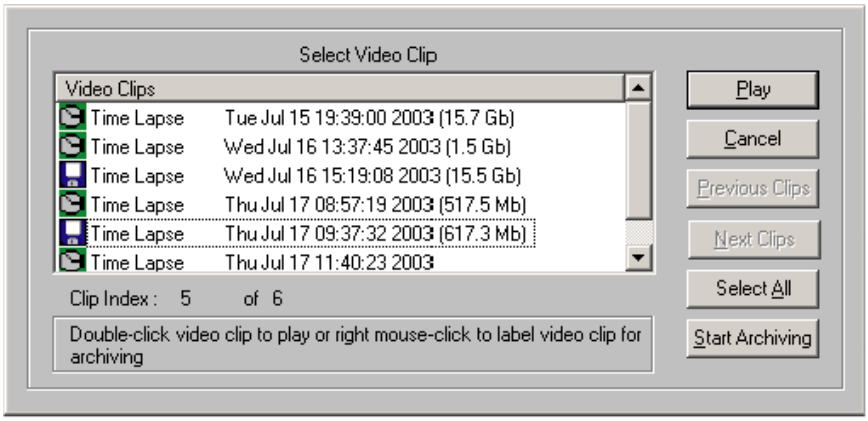
Note Archiving requires that the remote DVMS have an archive drive with available storage space already installed on the DVMS.

Archiving Entire Video Clips in the Search Menu

1. Click on the Binocular icon then enter the search parameters you wish to use and press **Play**.



2. A Video clip list appears. To mark a clip for archiving, right click on the clip, the icon next to the clip will become a blue archive icon. Click a second time to remove the clip from archiving.
3. Insure that the total Mb of clips you wish to archive is less then the remote archive device on the DVMS. For example if a DVMS had a 650 Mb unformatted CD installed, you should not have a total of more then approximately 500 Mb.

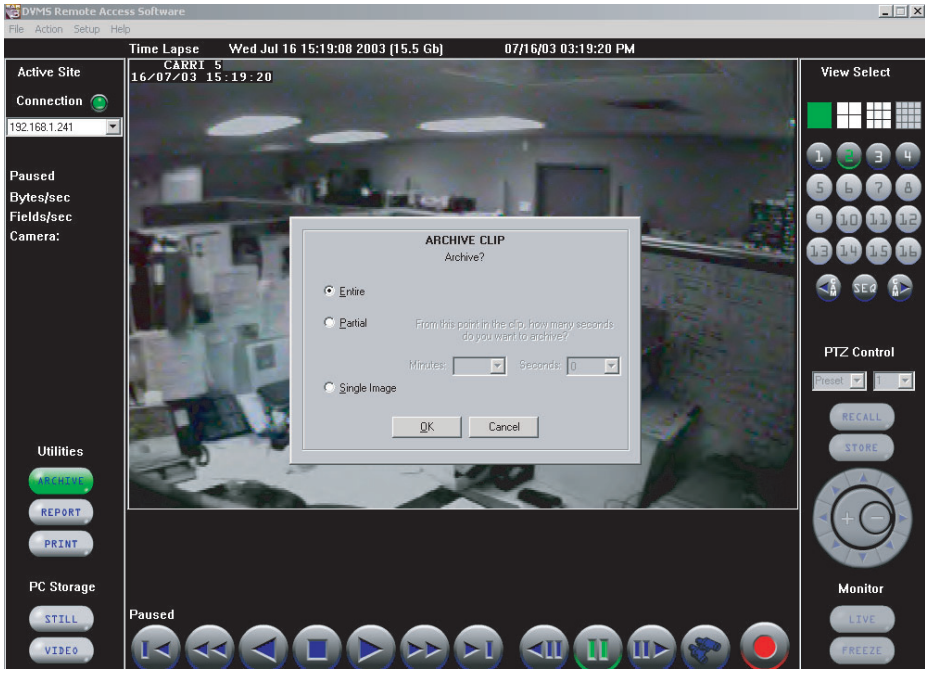

Select Video Clip
Video Clips
Time Lapse Tue Jul 15 19:39:00 2003 (15.7 Gb)
Time Lapse Wed Jul 16 13:37:45 2003 (1.5 Gb)
Time Lapse Wed Jul 16 15:19:08 2003 (15.5 Gb)
Time Lapse Thu Jul 17 08:57:19 2003 (517.5 Mb)
Time Lapse Thu Jul 17 09:37:32 2003 (617.3 Mb)
Time Lapse Thu Jul 17 11:40:23 2003
Clip Index : 5 of 6
Double-click video clip to play or right mouse-click to label video clip for archiving
Play
Cancel
Previous Clips
Next Clips
Select All
Start Archiving

4. Click **Start Archiving** to archive the selected clips.

Archiving Partial or Single Video Clips during Playback

You can use the **ARCHIVE** button to archive (copy) either a whole video clip, partial (up to 29 minutes, 55 seconds original clip length), or an individual image to an archive device in the DVMS unit.

1. Press the **ARCHIVE** button while playing back a video clip.



2. Select an archive option and press **OK**.

Archive Options

Entire	The whole clip being viewed is copied to the archive device (secondary storage) on the DVMS unit.
Partial	You are prompted to input the desired number of minutes and seconds (up to 29 minutes, 55 seconds original clip length) to copy video from the current position in the video.
Single Image	A single snapshot of what is currently displayed is archived (copied) to the archive device as an encrypted (.dfv) file. You can play back this archived image either on the DVMS unit or via RAS (**File ➤ Open Video/Image File**).

A

Modem and Serial (Null Modem) Connections (Windows NT/98 Only)

The DVMS *Duplex* comes with two programs that allow you to use your PC:

Software Update Utility (SUU)	Used solely to download software updates to your DVMS unit.
Remote Access Software (RAS)	A more versatile tool that gives you full access to your DVMS unit from a local or a remote PC.

When you use RAS, you connect to your DVMS unit via a modem, a null modem, or an Ethernet connection. If you plan to use a modem or a null modem connection, you must have Dial Up Networking installed before you can use RAS to create a dial-up modem or a null modem cable connection.

Note You can use RAS to create an Ethernet connection without installing Dial Up Networking.

This chapter covers the procedure needed to install Dial Up Network and a modem or null modem on your PC.

Operating System Considerations

How your computer handles modem communications depends on which operating system is installed on your PC and which communication method (dial-up modem, null modem cable) that you plan to use. Refer to the appropriate section that applies to your installation.

Operating System	See page …
Windows NT	
Modem	*page 92*
Null Modem	*page 94*
Dial Up Networking	*page 102*
Windows 98	
Dial Up Networking	*page 102*
Modem	*page 105*
Null Modem	*page 106*

Note Due to the many system differences possible, you may find some minor differences between your steps or screen displays and what is shown in this Appendix.

Windows NT

Installing a Modem

To use a modem on a computer running Windows NT operating system, you must first install your modem. If you have already installed your modem, skip to *Installing Dial Up Networking*, page *102*.

Note To install a modem in Windows NT you must be logged on with Administrator privileges.

1. Start Windows NT on your PC.

2. Double-click the **My Computer** icon on your desktop.

3. Double-click the **Control Panel** icon.

4. Double-click the **Modems** icon.

5. If you have never installed a modem on this computer, the Windows Installation Wizard will lead you through the process.

   If you already have a modem installed on your computer, double-click the **Modems** icon to open the Modem Properties window. Click **Add** to add a new modem or **Properties** to change the properties of your currently installed modem.

   You may need the disk that came with your modem or your Windows NT CD.

6. Some dial-up modems have a compression option. After you install a modem to use with the DVMS unit you need to make sure that this option is disabled. Turning off the compression option does not significantly affect transmission times because DVMS data is already highly compressed before it even leave the unit.

To turn off the compression option:

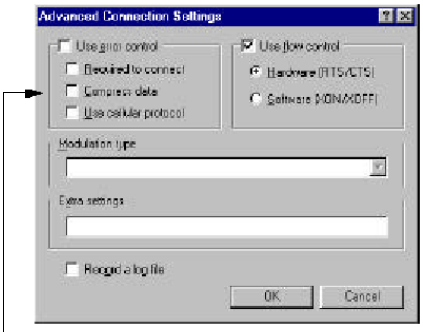
a. Open the **Control Panel**, then double-click the **Modems** icon.

b. Select your DVMS unit modem from the list, then click **Properties**.

c. Select the **Connection** tab, then click **Advanced**.

d. The upper left hand side of the Advanced Connection Settings window is a Use error control section. For some modems this will be grayed out. If it is not grayed out, make sure the Compress Data check box is **not** checked.

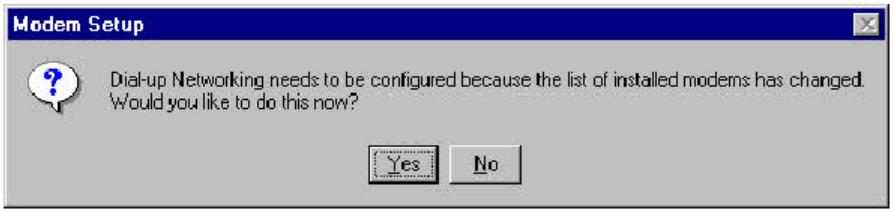
e. Click **OK** to save your settings.



Clear the Compress Data check box.

7. Next you need to install Dial Up Networking to use the modem you have just installed. See the Windows NT *Dial Up Networking*, page *96*.

8. If Dial Up Networking has already been installed on your computer, you will see the following message.


Modem Setup
Dial-up Networking needs to be configured because the list of installed modems has changed. Would you like to do this now?
Yes
No

9. Click **Yes**.

10. The Windows Remote Access Setup window opens. Click **Add** to add your newly installed modem to the list. See the Windows NT *Dial Up Networking*, page *96*.

Installing a Null Modem

Note You do not need to install the null modem drive to use the Software Update Utility.

To make a null modem cable connection from your PC to your DVMS unit you need to:

- Use a serial null modem RS232 cable (not a standard serial cable)
- Install the null modem driver supplied with your Remote Access Software

Note You cannot use the Direct Cable Connection function from Windows NT as that function is only intended to connect computers running Windows operating systems.

To use a null modem cable connection with Windows NT you must first install the null modem driver. Installing the null modem driver uses the same initial steps as installing a regular modem:

1. Start Windows NT on your PC.
2. Double-click the **My Computer** icon on your desktop.

3. Double-click the **Control Panel** icon.

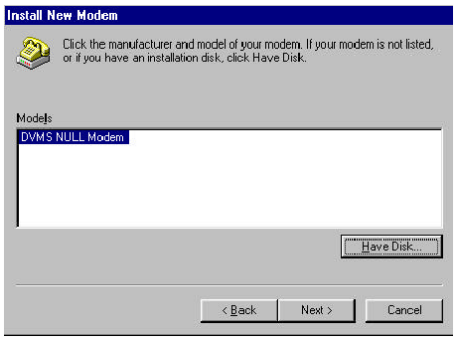
4. Double-click the **Modems** icon.

5. If you have never installed a modem on your computer the Windows Installation Wizard will lead you through the process.

   If you already have a modem installed on your computer, double-click the **Modems** icon to open the Modem Properties window. Click **Add** to add the new null modem.

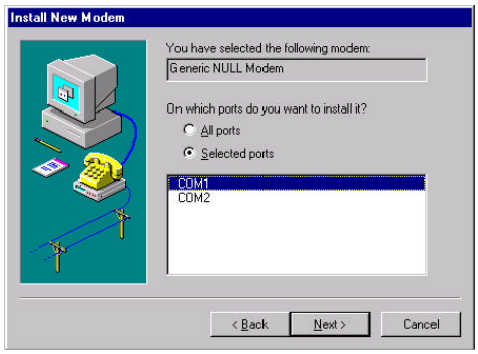
   When you start to add the new modem, place a check mark next to the **Don't detect my modem; I will select it from a list** box. Click **Next**.
6. Click **Have Disk** and use the **Browse** button to select the Null Modem directory on your DVMS CD. Click **OK**.

7. In the Install New Modem window, select **Null Modem**, then click **Next**.


Install New Modem
Click the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Models
DVMS NULL Modem
Have Disk...
< Back
Next >
Cancel

8. In the next window, select the PC communication port that you intend to use for your null modem cable connection.

   Remember, to use it with your DVMS unit, this must be a serial port (usually COM1 or COM2).



9. Click **Next**. You will be asked to provide Local Information such as your local area code. This information is not used when you are making a null modem connection.
10. Click **Next** again. Windows NT will install the driver.
11. When it is done, click **Finish**. Your newly installed null modem driver will appear in the modem list.
12. Click **OK** to exit the modem subroutine.

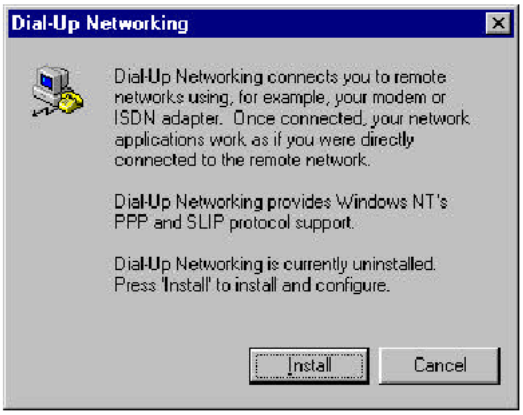
Next you need to install Dial Up Networking to use the null modem driver you have just installed.

Dial Up Networking

Before you can use a modem, you must set up the Dial Up Network properties that your PC uses when it is connected to your DVMS unit. Dial Up Networking may or may not have been set up on your PC when Windows NT was initially installed.

1. Double-click the **My Computer** icon on your desktop.

2. Double-click the **Dial-Up Networking** icon. This opens a window that tells you whether or not it is installed.

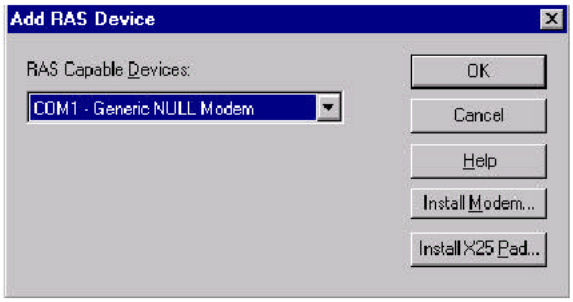

Dial-Up Networking
Dial-Up Networking connects you to remote networks using, for example, your modem or ISDN adapter. Once connected, your network applications work as if you were directly connected to the remote network.
Dial-Up Networking provides Windows NT's PPP and SLIP protocol support.
Dial-Up Networking is currently uninstalled. Press 'Install' to install and configure.
Install
Cancel

If it is not installed, you have the opportunity to install it now. Follow the procedure in the next section. If you have already installed Dial Up Networking, you still need to update Dial Up Networking to add your modem or null modem to the list of devices recognized by Windows NT. Proceed directly to *step 4*.

Installing or Updating Dial Up Networking

Before installing Dial Up Networking, you need to have a dial-up modem attached to your computer and turned on (or have a null modem driver installed) so that Windows NT can detect it while installing the dial up networking.

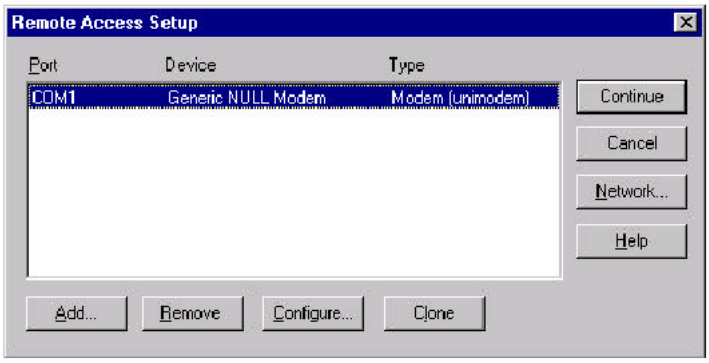
1. Double-click the **Dial-Up Networking** icon, then click **Install**.
2. You will be prompted to find the required file.
   a. Insert your Windows NT CD into your CD-ROM drive.
   b. Use the Browse button to find the required file.
   c. Click **OK**. The required file copies to your system drive.
3. A window opens to allow you to select a RAS device. Select the modem that you just installed, then click **OK**.



4. A Remote Access Setup list displays.

   If you are installing Dial Up Networking, your newly added device shows on the list. Click **Network** and proceed to *step 5*.

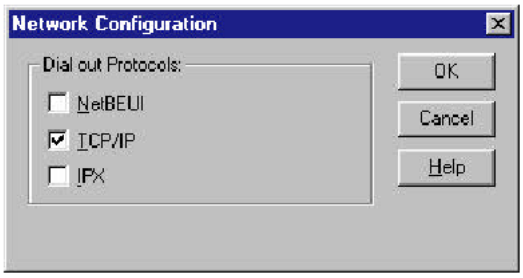
   If you are updating Dial Up Networking, your newly added device will not be shown on the list. Click **Add** to select your new modem or null modem from a drop-down list, then click **OK**. Your new device should now be shown on the list.



Note You can open the Remote Access Setup window at any time by (a) opening the Windows NT **Control Panel**, (b) double-clicking the **Network** icon, (c) selecting the **Service** tab, (d) selecting **Remote Access Service** from the list, and (e) clicking **Properties**.

You can only add one modem or null modem per COM port installed on your computer.

5. The Network Configuration window opens. You must make sure that **only** the **TCP/IP** box is checked. If necessary, uncheck the NetBEUI and the IPX check boxes.



6. Click **OK**.

7. On the Remote Access Setup window, click **Continue**. You will be asked if you want to restart your computer (to have your new settings take effect). Shut down all programs, remove any floppy disks, then click **Restart**.

Before you can use your new modem connection, you must create a DVMS Phonebook Entry.

Note Each modem or dial-up modem may have multiple Phonebook Entries that can be used to connect to different devices. For example, you may use the same dial-up modem to connect your computer to the internet (using one phone number) and to connect your computer to a DVMS unit (using another phone number).

Creating a Phonebook Entry

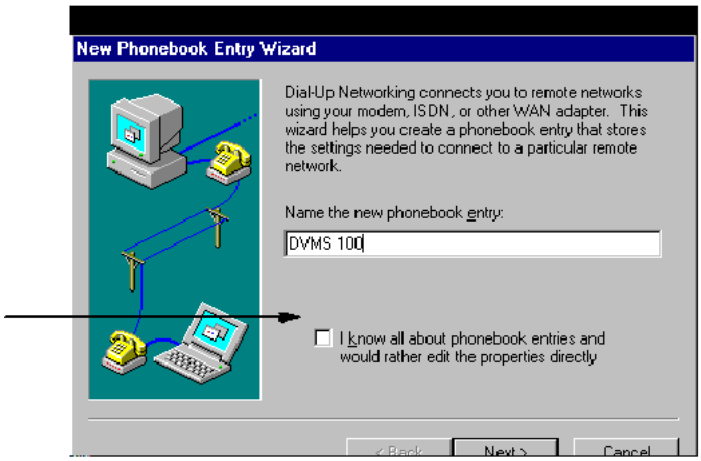
Note You can install a Phonebook Entry using the Gyyr RAS software. The following section is provided here for reference.

1. Start **Windows NT**, then double-click the **My Computer** icon.
2. Double-click the **Dial-Up Networking** icon.

   If you have never created a Phonebook Entry you will see a window displaying the message `The phone book is empty. Press OK to add an entry.` Click **OK**.

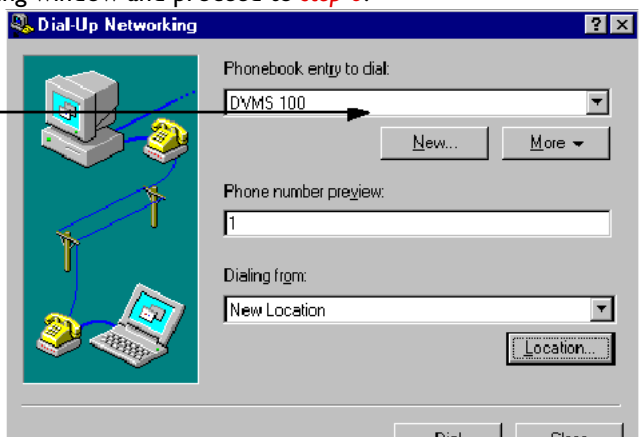
   You can now create a new entry. If you have never done this before you will be shown the Entry Wizard. Bypass this wizard and edit the properties directly by putting a check mark in the box as shown below, then proceed to *step 6*.

Place check mark here to bypass the Entry Wizard, then click **Next**.


New Phonebook Entry Wizard
Dial-Up Networking connects you to remote networks using your modem, ISDN, or other WAN adapter. This wizard helps you create a phonebook entry that stores the settings needed to connect to a particular remote network.
Name the new phonebook entry:
DVMS 100
I know all about phonebook entries and would rather edit the properties directly
< Back
Next >
Cancel

If you have previously created a Phonebook Entry, simply click the **New** button on the Dial-Up Networking window and proceed to *step 6*.

For previously created Phonebook Entries, click **New** to create a new Phonebook Entry.



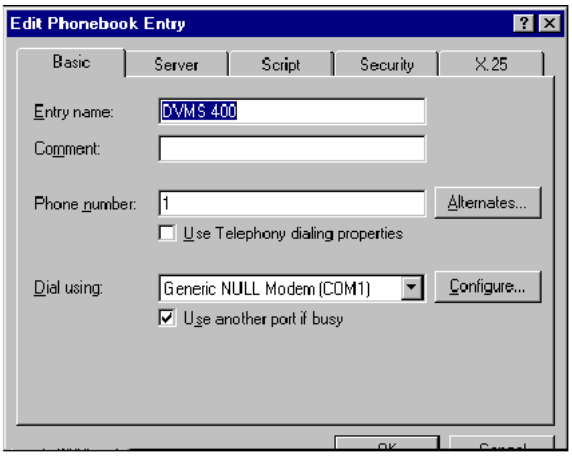
3. The New Phonebook Entry window opens. Enter a name for your new Phonebook Entry.

   Dial Up Modem Connection

   Enter the phone number and the modem to use for this connection.

   Null Modem Connection

   You will not be using the phone line to make the connection so you do not need to dial a phone number. When you are creating a Phonebook Entry for your null modem connection, enter **1** for the phone number.

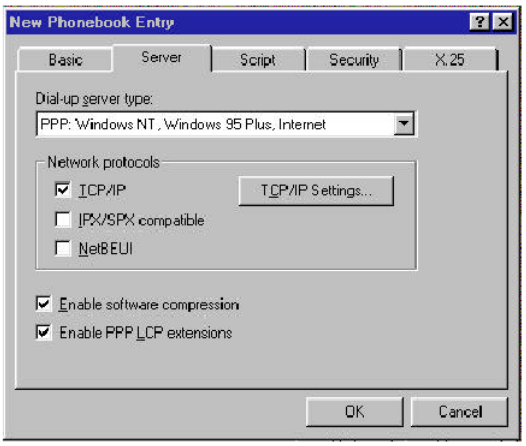


4. Click the **Server** tab.

   a. In the Network protocols section ensure that **only** the **TCP/IP** box is checked, as shown above. If necessary, uncheck the NetBEUI and the IPX/SPX check boxes.

   b. In the Dial-up server type drop-down list, select **PPP**.

   c. Click the **TCP/IP Settings** button.



5. On the PPP TCP/IP Settings window:

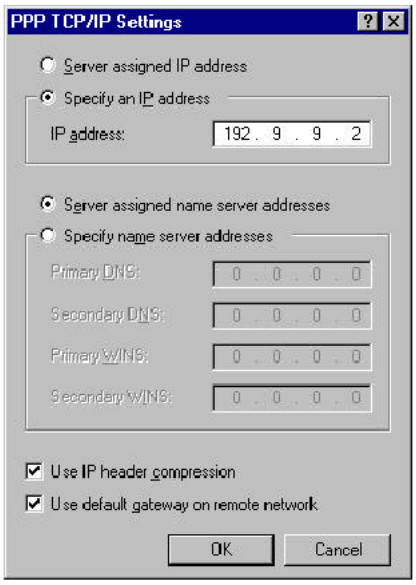
   a. Click the **Specify an IP Address** radio button.

   b. Enter a unique IP address as shown.

      The IP address you enter (your PC modem address) must be a **unique** number. That is, it must be different from the IP address of your DVMS unit. Also, no other PCs or DVMS units in your network can use the same number.

      For additional IP address information, contact your ISP or Network Administrator.

   c. Click **OK**.



6. Click the **Script** tab and ensure that the Login script selected is **None**.
7. Click **OK** to create your new Phonebook Entry.

After you have created a Phonebook Entry you may add more entries or modify existing entries:

1. Double-click the **My Computer** icon on your desktop.
2. Double-click the **Dial-Up Networking** icon.
3. The Dial-up Networking window opens. Click **New** to create a new entry or click the **More** drop-down button to edit an entry.

Your modem connection is now fully installed and ready to use with your Gyyr RAS application.

Windows 98

Dial Up Networking

Before you can use a modem, you must set up the Dial Up Network properties that your PC uses when it is connected to your DVMS unit. Dial Up Networking may or may not have been set up on your PC when Windows 98 was initially installed.

If it was installed, you will see a Dial Up Networking icon in the window that opens when you double-click the **My Computer** icon on your desktop.

If you do not see the Dial Up Networking icon, you need to install Dial Up Networking. Follow the procedure in *Installing Dial Up Networking*.

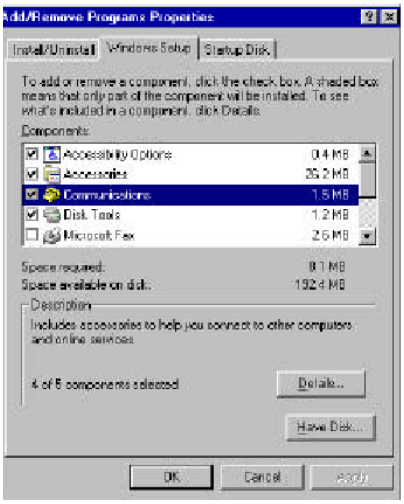
If you do see the Dial Up Networking icon, proceed to *Adding the Dial Up Adapter*, page *104*.

Installing Dial Up Networking

1. Double-click the **My Computer** icon on your desktop; then double-click the **Control Panel** icon.

2. Double-click the **Add/Remove Programs** icon.

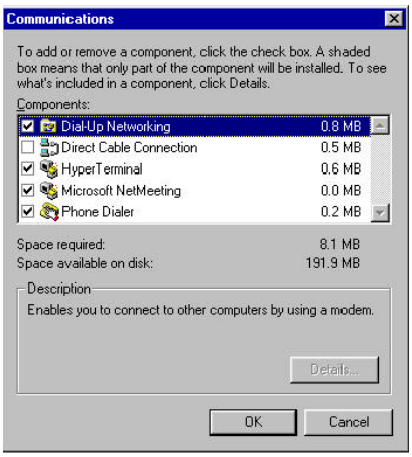
3. Click the **Windows Setup** tab.
4. Highlight the **Communications** item.
5. Click **Details**.


Add/Remove Programs Properties
Install/Uninstall
Windows Setup
Startup Disk
To add or remove a component, click the check box. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.
Components:
Accessibility Options 0.4 MB
Accessories 25.2 MB
Communications 1.5 MB
Disk Tools 1.2 MB
Microsoft Fax 2.6 MB
Space required: 8.1 MB
Space available on disk: 192.4 MB
Description
Includes accessories to help you connect to other computers and online services.
4 of 6 components selected
Details...
Have Disk...
OK
Cancel
Apply

6. Place a check mark in the **Dial-Up Networking** box, then click **OK**.

   You may be asked for your Windows 98 CD. If so, put it in your CD ROM drive to continue the installation.

   As part of the installation you will be asked to set up a new connection. You may set up a DVMS connection now or you may set it up later from the RAS application.


Communications
To add or remove a component, click the check box. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.
Components:
Dial-Up Networking 0.8 MB
Direct Cable Connection 0.5 MB
HyperTerminal 0.6 MB
Microsoft NetMeeting 0.0 MB
Phone Dialer 0.2 MB
Space required: 8.1 MB
Space available on disk: 191.9 MB
Description
Enables you to connect to other computers by using a modem.
Details...
OK
Cancel

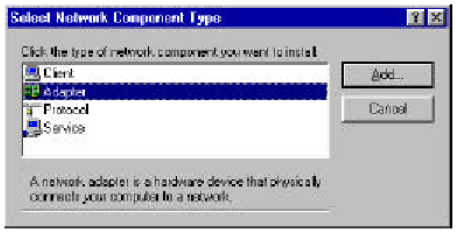
Adding the Dial Up Adapter

You may also need to add the TCP/IP Dial-Up Adapter used by Windows 98 for communications. To do this:

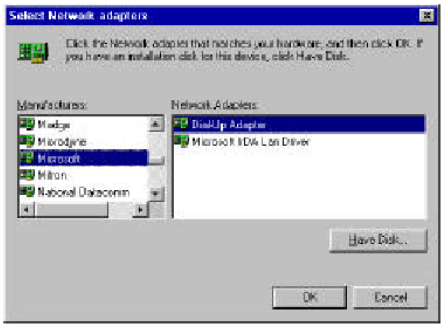
1. Double-click the **My Computer** icon on your desktop, then double-click the **Control Panel** icon, followed by the **Network** icon.

2. In the Network window, click **Add**.

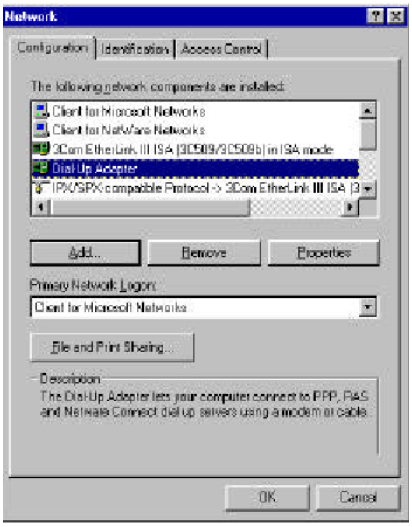
3. In the Select Network Component Type window, highlight **Adapter**, then click **Add**.



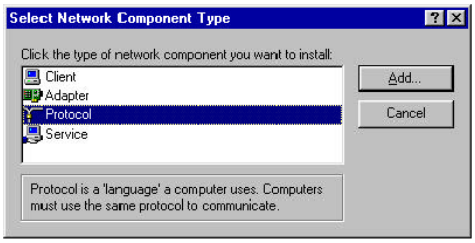
4. In the Manufacturers list, highlight **Microsoft** and in the Network Adapters list highlight **Dial-Up Adapter**. Click **OK**.



5. The Network window now shows the Dial-Up Adapter in the list. Click **Add** again.

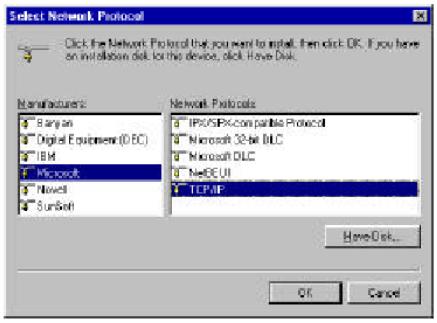


6. In the Select Network Component Type window, select **Protocol**, then click **Add**.



7. In the Manufacturers list, highlight **Microsoft**. In the Network Protocols list highlight **TCP/IP**. Click **OK**.

   This will bind the TCP/IP protocol to the Dial-Up Adapter.



8. Click **OK** on the main Network window.
9. You will have to reboot your computer to finish installing your new Dial-Up Adapter. This will add a TCP/IP Dial-Up Adapter to your list of network components.

Installing a Modem

To use a modem with Windows 98 you must first install your modem. If you have already installed your modem you may skip this section.

1. Start up Windows 98 on your PC.
2. Double-click the **My Computer** icon on your desktop.

3. Double-click the **Control Panel** icon.

4. Double-click the **Modems** icon.

5. If you have never installed a modem on your computer the Windows Installation Wizard will lead you through the process.

   If you already have a modem installed on your computer, double-click the **Modems** icon to open the Modem Properties window. Click **Add** to add a new modem or **Properties** to change the properties of your currently installed modem.

Note You may need the disk that came with your modem or your Windows 98 CD.

Installing a Null Modem

Note You do **not** need to install the null modem driver to use the Software Update Utility (SUU).

To make a null modem cable connection from your PC to your DVMS unit you need to:

- Use a serial null modem RS232 cable (not a standard serial cable)
- Install the null modem driver supplied with your Remote Access Software

---

Note You cannot use the Direct Cable Connection function from Windows 98 as that function is only intended to connect computers running Windows operating systems.

To use a null modem cable connection with Windows 98 you must first install the null modem driver. Installing the null modem driver uses the same initial steps as installing a regular modem:

1. Start up Windows 98 on your PC.
2. Double-click the **My Computer** icon on your desktop.

3. Double-click the **Control Panel** icon.

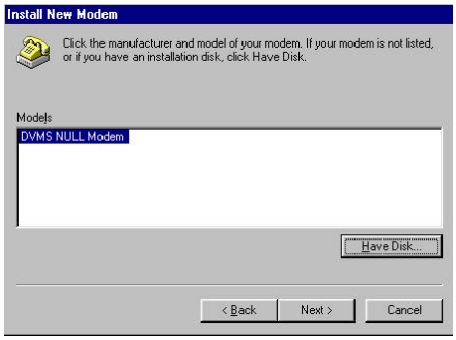
4. Double-click the **Modems** icon.

5. If you have never installed a modem on your computer the Windows Installation Wizard will lead you through the process.

   If you already have a modem installed on your computer, double-click the **Modems** icon to open the Modem Properties window. Click **Add** to add the new null modem.

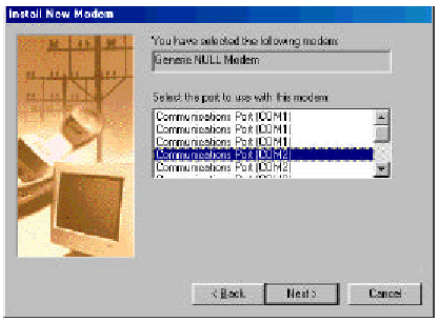
   When you start to add the new modem, place a check mark next to the **Don't detect my modem; I will select it from a list** box. Click **Next**.

6. Click **Have Disk** and use the **Browse** button to select the Null Modem directory on your DVMS CD. Click **OK**.
7. In the Install New Modem window, select **Null Modem**, then click **Next**.


Install New Modem
Click the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Models
DVMS NULL Modem
Have Disk...
< Back
Next >
Cancel

8. In the next window, click on the PC communication port that you intend to use for your direction connection.

   Remember, to use it with your DVMS unit, this must be a serial port (usually COM1 or COM2).



9. Click **Next**. Windows 98 will install the driver.
10. When it is done, click **Finish**. Your newly installed null modem driver will appear in the modem list.
11. Click **OK** to exit the modem subroutine.

Creating a Modem Connection

Note You can create a DVMS modem connection using the Gyyr RAS software. The following section is provided for reference.

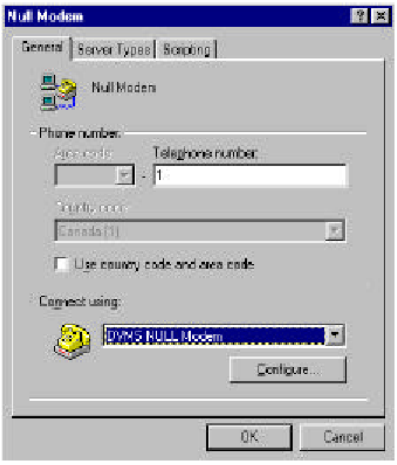
After the previous steps are complete, you should see a Dial-Up Networking icon in your My Computer window. Double-click the **Dial-Up Networking** icon. If you did not set up a DVMS unit connection in the previous steps, you may do it now by double-clicking the **Make New Connection** icon and following the on-screen instructions. After you have finished creating a DVMS unit connection, you need to modify some of the properties:

1. Right-click your newly created **DVMS** unit icon, then select **Properties** from the pop-up menu.

2. The Properties window has a **General** tab which includes the phone number and the modem to be used by this connection.

   For a regular modem, enter the phone number you need to dial to connect to the DVMS unit modem.

   For a null modem, enter **1** for the telephone number, then click **OK**.



3. Some dial-up modems have a compression option. When you install a regular dial-up modem to use with the DVMS unit you need to make sure that this option is **disabled**. Turning off the compression option does not significantly affect transmission times because the DVMS data is already highly compressed before it leaves the unit.

   To turn off the compression option:

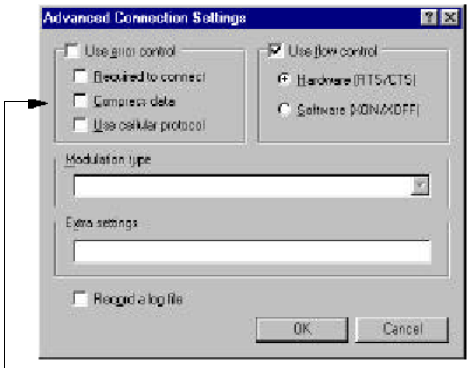
   a. Open the **Control Panel**, then double-click the **Modems** icon.

   b. Select your DVMS unit modem from the list and click **Properties**.

   c. Select the **Connection** tab, then click **Advanced**.

   d. The upper left hand side of the Advanced Connection Settings window is a Use error control section. For some modems this will be grayed out. If it is not grayed out, make sure the **Compress data** check box is **not** checked.

   e. Click **OK** to save your settings and return to the main DVMS properties window.



Clear the Compress Data check box.

4. Select the **Server Types** tab.

   On some Windows operating systems Server Types may be a button instead of a tab. In this case, click the Server Type button.

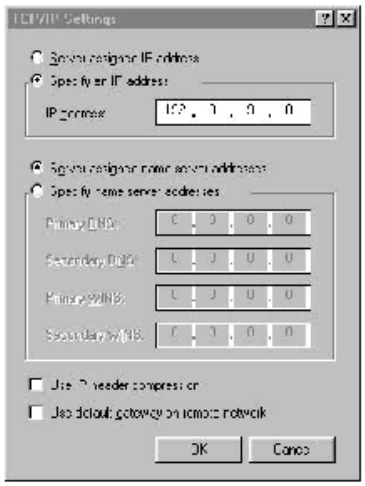
5. Ensure that **only** the **TCP/IP** box is checked. Clear all others.

6. Click **TCP/IP Settings**.

7. Click the **Specify an IP Address** radio button and enter a unique IP address as shown.

   The IP address you enter (your PC modem address) must be a unique number. That is, it must be different from the IP address of your DVMS unit. Also, no other PCs or DVMS units in your network can use the same number.

   For additional IP address information, contact your ISP or Network Administrator.



8. Click **OK** to save your settings.

Your modem connection is now fully installed and ready to use with your Gyyr RAS application.

B

Supported Drives and Cards

Ethernet and PCMCIA Cards

Silent Witness has successfully tested the following Ethernet and PCMCIA cards for use with the DVMS *Duplex* and DVMS *Simplex* models:

Make	Model
DLink	10/100 PC Card Model #DFE-670TXD
TRENDnet	10/100 Ethernet PC Card Model #TE-100-PC16

Modem Connections

Silent Witness has successfully tested the following modem card connection for use with the DVMS *Duplex* and DVMS *Simplex* models:

Zoom 56K PC card V.92 Model #3075

C

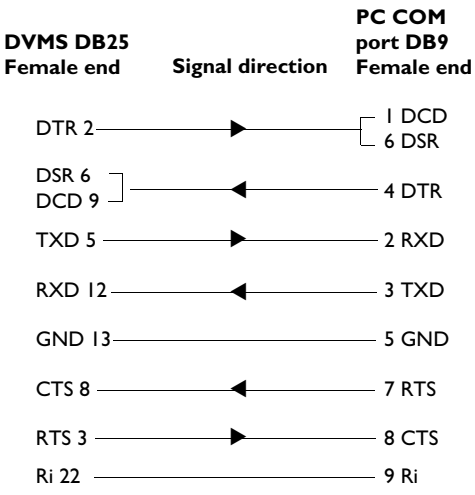
Cables and Pinouts

This appendix shows a PC to DVMS cable and provides the pinouts.

PC to DVMS 1600/800 Cable

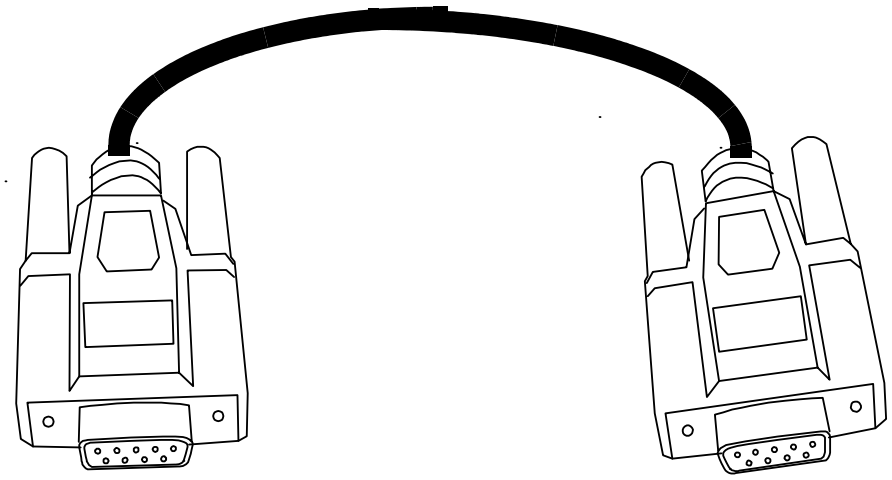
DVMS 1600/800 DB25 to PC COM Port DB9 Connection

DVMS 1600/800 DB25 to PC COM Port DB9 Pinouts

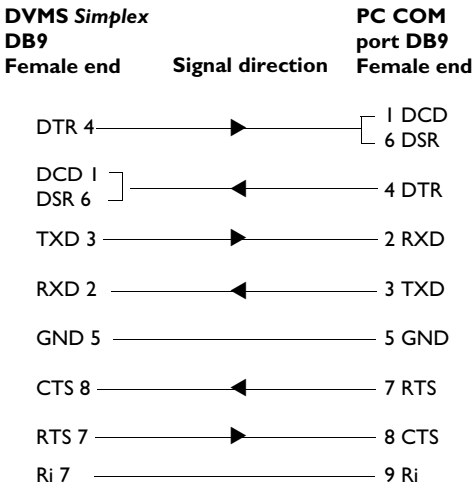


PC to DVMS 100 or DVMS *Simplex* Null Modem Cable

DVMS 100/DVMS *Simplex* DB9 to PC DB9 Connection



DVMS 100/400/DVMS *Simplex* DB9 to PC COM Port DB9 Pinouts



D

Quick Solutions

This appendix is designed to provide short answer procedures for operating questions.

How Can I Print Pictures?

Method one:

1. Playback video from a DVMS.
2. Click the **PAUSE** button on the RAS desktop during the image you would like to print.
3. Click the **PRINT** button on the RAS desktop.
4. Select a printer in the Printer drop-down list, then click **OK**.

Method two:

1. Enable the Live View feature so that video is present on the RAS Viewer window.
2. Click the **FREEZE** button on the RAS desktop to capture the image.
3. Click the **PRINT** button on the RAS desktop.
4. Select a printer in the Printer drop-down list, then click **OK**.

Method three:

1. Go to **File ➤ Open Video/Image File**.
2. Using the Open File dialog box, search the Program Files/Gyyr/RAS/Still subdirectory to find the image file (for example, 2002_5_1_7.bmp).
3. Click **OK**.
4. Click the **Print** button on the RAS desktop.

Select a printer in the Printer drop-down list, then click **OK**.

For more details, see *Printing Images* on page *65*.

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